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ORISSA REVIEW

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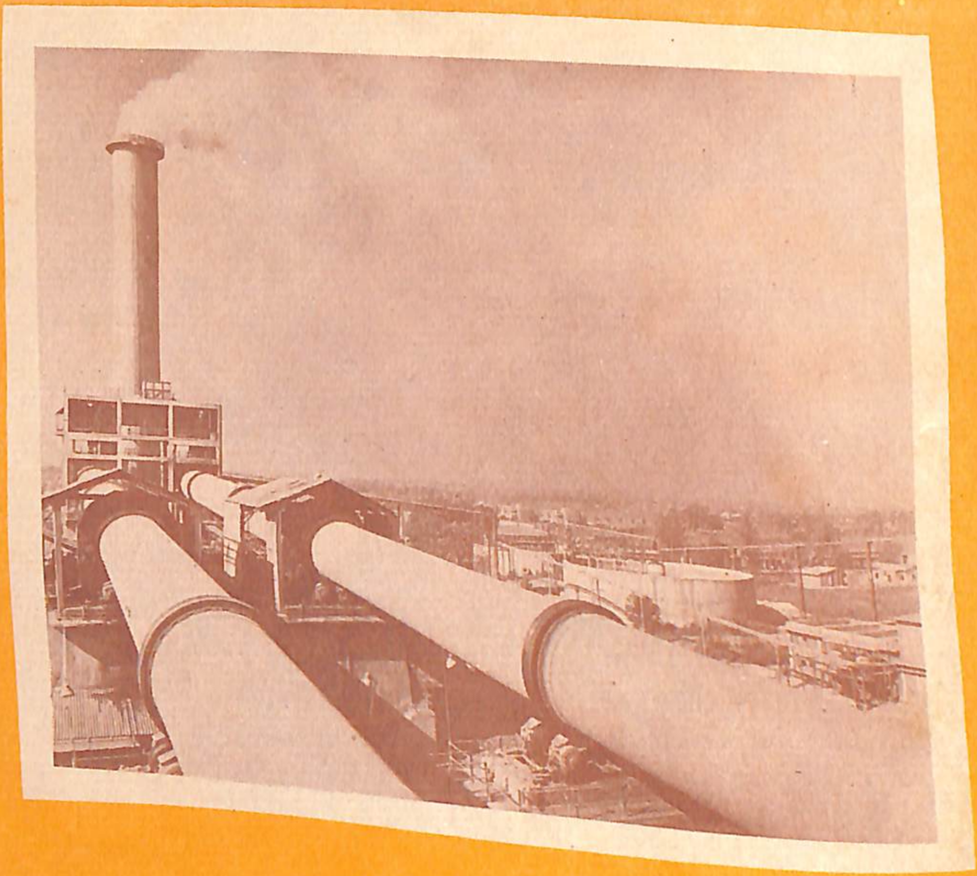

View of Rotary Kiln of Hira Cement Works at Bargarh

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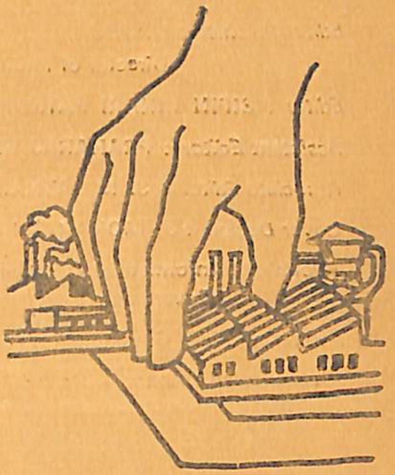

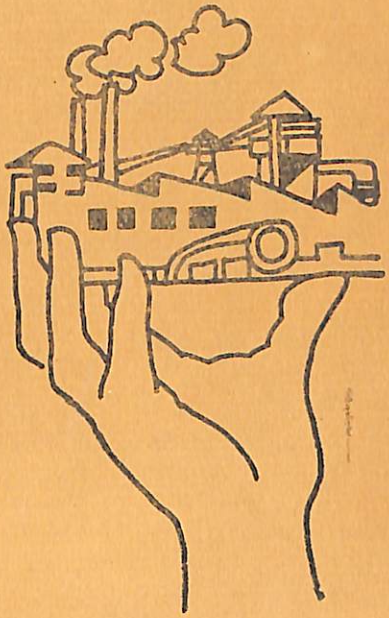

ORISSA REVIEW

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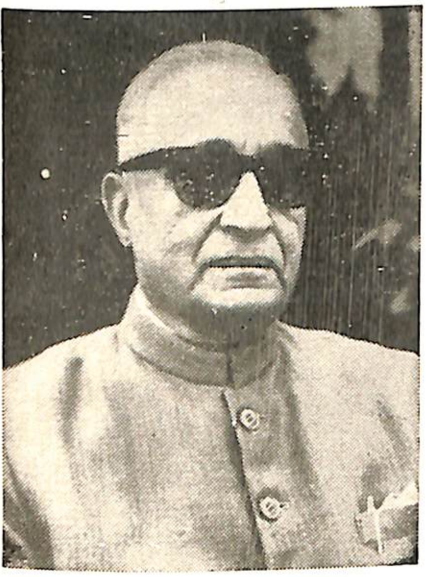
ORISSA REVIEW seeks to provide a condensed record of the activities and official announcements of the Government of Orissa and other useful information. Many items appear in summarised form. Such items should not be treated as complete and authoritative versions.

Although published on behalf of the Government of Orissa, Information & Public Relations Department, the views in the items expressed in the 'Orissa Review' are not necessarily those of the Government of Orissa.



Message

I am happy to know that a special issue of the Utkal Prasanga and Orissa Review is being published on the occasion of the Orissa Day Celebrations on 1st April 1981.

Formation of Orissa as a separate Province 45 years ago was indeed a landmark in the history of the Oriya speaking people. The State with glorious tradition and culture obtained independent identity in fulfilment of the long-cherished dreams of the millions of people. In the meanwhile, we can, no doubt, justifiably take pride in having contributed our mite to the development of the country. We have made rapid strides in Agriculture, Industry, Social Services and the like, but considering the magnitude of poverty and backwardness, we cannot rest in peace till every individual gets due share of food, clothing, shelter and facilities for his total development.

I fervently call upon all sections of the people irrespective of their caste, creed and colour to rise to the occasion and strive to make best use of themselves in the service of the motherland so as to make Orissa strong and prosperous and an ideal partner in the progress of the country.

My greetings and good wishes to the people of Orissa on this memorable occasion.

Poonacha

(C. M. POONACHA)

Governor of Orissa

Message

Orissa's economic progress depends to a large extent on rapid industrialisation. With its abundant natural resources Orissa offers a unique scope for industrial growth. It is, however, unfortunate that despite all its rich potential Orissa has remained industrially backward over the years resulting in economic stagnation and frustration among its people. This is a reality we have to reckon with while planning for the State's overall development.

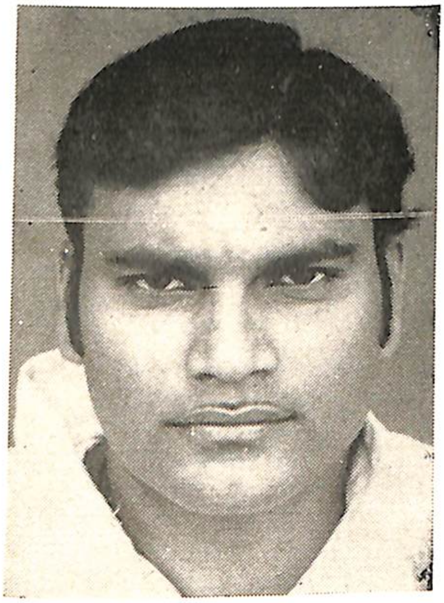
With the installation of the new Government in the State in June, 1980, fresh grounds have been broken for rapid industrialisation of the State. The new industrial policy announced by the State Government has paved the way for the growth of a large number of large, medium and small industries in the various parts of the State. An atmosphere conducive to industrialisation has been created by providing infrastructural facilities and various concessions to the prospective entrepreneurs. These measures, I am sure, will go a long way in ushering in an era of progress and prosperity in the State.

I am happy to learn that special issues of the Orissa Review and the Utkal Prasanga are being brought out on the auspicious occasion of the Orissa Day to highlight the activities in the industrial sector. I hope the issues will be of considerable interest for all those who are genuinely interested in the industrialisation of the State.

J. B. Patnaik

(JANAKI BALLAV PATNAIK)

Chief Minister, Orissa



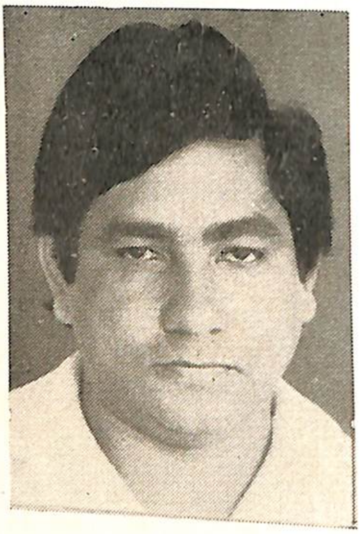
Message

Our Government have introduced the new Industrial Policy with a view to making Orissa industrially prosperous. As a result, many industrial entrepreneurs have evinced keen interest to establish industries in Orissa. Still then, widespread publicity regarding new Industrial Policy is necessary.

It is a matter of rejoice that Industries Special issue of "Utkal Prasanga" and "Orissa Review" are going to be published by Information and Public Relations Department.

I hope that this special issue would reach the general public and would help fulfilling their hopes and aspirations.

(KISHORE CHANDRA PATEL)
Minister of State, Industries, Orissa



Message

On this historic day, each and every person residing in Orissa secured separate identity as Oriya. For achieving the legitimate demand of addressing the motherland as mother in our mother-tongue without any hesitation many a leading persons of Orissa have given proof of their patriotism by toiling through blood and tear. That sacred occasion has today entered its 46th year symbolising the great sacrifices made in that regard.

Orissa abounds in rivers, mountains, green forest lands and rich mineral resources. Carrying the message of Orissa's culture, art, sculpture, patriotism and great tradition of sacrifice, the first day of April has come to us today with a big challenge. With new inspiration in accepting this challenge, let us come forward with a determination to make the tradition of the Oriya race ever-lasting. Let us face the ordeal for deleting the undesirable stain of poverty and discrimination which has gathered on the aristocratic body-politic of Orissa in course of time.

May humanitarianism, mutual amity and patriotism shed lustre on our path of progress on this sacred occasion—this is the prayer before Mother Orissa.

(L. M. GANDHI)
Minister of State
Information & Public Relations,
Planning & Co-ordination, Orissa

The Industrial Development Corporation and its role in industrialisation of the State

SHRI S. K. LALL,

The Industrial Development Corporation of Orissa, one of the largest Organisations in the State Sector plays a significant and active role in rapid industrialisation of Orissa. Its role includes promotion, establishment and management of industries and the development of Industrial skills within the State keeping in mind the availability of natural resources and the demand on industrial products.

The Corporation was set up in 1962 and in pursuance of above tasks it has established seven industrial units of its own. These are Kalinga Iron Works at Barbil, Hira Cement Works at Bargarh, Ferro-Chrome Plant at Jajpur Road, Tile Factory at Choudwar and Hirakud Industrial Works, Hira Cable Works and Re-Rolling Mill at Hirakud. Besides, there is a subsidiary company by the name of East Coast Salt and Chemical Indusries Ltd. at Sumandi. These Industrial Complexes cover the manufacture of a wide and varied range of products like Cement, Ferro-Chrome, Pig-Iron, Rolled Steel Products, Aluminium Conductors, Winding Wires and Strips, Transmission Line Towers, Tiles and Salt. These were brought into commercial production between 1969 and 1970. The capital invested so far in these Projects amounts to Rs. 45·00 crores including Rs. 22·00 crores in shape of paid up capital. Around 4,000 persons have been directly employed in these Projects.

In spite of hurdles in regard to availability of raw-material, power restriction, marketing of products and employment of industrially untrained labourers, the performances of these Projects in all respects shows a marked improvement during recent years. The present annual turnover of these Projects is around Rs. 46·00 Crores. Hira Cement Works, one of the units of this Corporation continues to be No. I Public Sector Cement Factory in respect of capacity utilisation. Other units like Hira Cable Works, Re-Rolling Mill and Kalinga Iron Works have achieved record production in 1979-80 and continue the trend in 1980-81 also.

The Corporation has also been active in the field of export and is a registered export house. During the period up to 1979 it has exported a sizeable quantity of Ferro-Chrome and Pig-Iron to the different countries of the world.

As a promoter of industries within the State, the Corporation's achievement in this regard is quite remarkable. In addition to eight Industrial units under its direct management, it has set up a *Jute Mill* by the name of *"Konark Jute Limited"* in the district of Cuttack in collaboration with *National Agricultural Co-operative Marketing Federation of India Ltd., New-Delhi* to produce 13,240 tonnes of jute products per annum. This Mill has started commercial production in 1978. Another unit *"East Coast Breweries & Distilleries Ltd."* set up near Paradip Port with majority investment by Industrial Development Corporation of Orissa Ltd. and State Government. In collaboration with a private entrepreneur with a capacity to produce 50,000 HL bear per annum has started commercial production in 1979. Two other Joint Sector Projects are in advanced state of implementation. One of these Project called *"Orichem Limited"* is going to be set up in Dhenkanal district with a capacity to produce 4,820 tonnes of Sodium Dichromate and Sodium Sulphate per annum. The construction works are in progress and commercial production is expected to start by December, 1981. The other Joint Sector Project called *"Nicco Orissa Limited"* is to be set up in Mayurbhanj district with a capacity to manufacture Crossed Linked

Polythene Cable 700 Km. per annum. All preliminary works like formation of a company taking possession of land and placing order for Plant and Machinery with foreign suppliers have been completed. The Project is expected to go into production by the middle of 1982.

The production in all units set up by the Corporation has been stabilised and the units promoted are also progressing ahead. The Corporation is now actively working on expansion and diversification of production in many units and at the same time vigorous steps are being taken to establish a number of new industries in the State.

So far as diversification and expansion programmes are concerned, the Corporation has made remarkable progress in recent years. A *Properzi Unit* with a capacity of 6,000 tonnes of Aluminium Rods per annum is being set up at Hirakud and is likely to be commissioned by the end 1981. Expansion of Hira Cement Works from 4·00 lakhs tonnes of cement to 5·30 lakhs tonnes of cement per annum has been taken up and is likely to be commissioned by the end of 1982. Similarly for the diversification of product of Kalinga Iron Works, a *Spun Pipe Plant* with a capacity 36,000 tonnes of Spun Pipe per annum is being set up and is likely to be completed by 1982. For diversification of product of Tile Factory a *Refractory Plant* with a capacity of 2,300 tonnes of Refractory Bricks has been planned for and all preliminary works have been completed.

Its achievement in respect of setting up new industries is also quite remarkable. A *Boilber Piping Plant* with a capacity of 3,000 M. T. of Low Alloy Steel Seamless Piping, Bending Bends, Ells, Tees, Reducers, etc. per annum is being set up at Bhubaneswar. This plant is expected to go into production by the end of 1982. Five *Spinning Mills* with a capacity of 25,000 spindles each are going to be set up one each at Sonepur, Baripada, Kesinga, Keonjhar and Aska. Of these five Spinning Mills, Sonepur Spinning Mill has been taken up under a separate company named Sonepur Spinning Mill Ltd., but fully subsidiary to this Corporation and rest four units have been taken up by the Corporation itself for the present. The construction work at Sonepur Spinning Mill has already been started and is expected to be commissioned by July, 1982. For other four units the preparatory works have started and these are expected to be commissioned by end of 1983. A *Salt Project* is going to be set up in Balasore district with capacity of 100,000 tonnes of edible salt per annum and its survey work is under progress.

Besides the above, the Corporation is now actively searching for establishment of certain more industries in the State. This includes the Projects like Cement, Jute Electronic, etc. Some of these Projects have been identified and preliminary works have been started and some are under identification stage. With the present trend of progress for searching for and establishment of new Projects, a good number of such Projects are expected to be finalised shortly.

With the vast natural resources available in the State and the role undertaken by the Industrial Development Corporation for industrialisation of State will no doubt change the economic pattern of State within a short period.

Chairman
The Industrial Development
Corporation of Orissa Ltd.

Role of IPICOL in promoting industries

Dr. H. P. MISRA

IPICOl stands for INDUSTRIAL PROMOTION & INVESTMENT CORPORATION OF ORISSA LIMITED, where promotion comes ahead of investment, IPICOL is the pioneer promotronal body of Government of Orissa for setting up large and medium scale industries in the State. It invests money in the form of direct participation in equity underwriting of share issues, bridge loans and term loans. IPICOL avails IDBI's refinance facilities to arrange finance for medium-scale projects. IPICOL operates IDBI's seed capital assistance scheme to help prospective techno-entrepreneures on easy terms. IPICOL is also an agent for the various incentive schemes of the Government. No industry, big or small can run without adequate finance. IPICOL's Merchant Banking bridges the gap of deficint, if any, by arranging loans from commercial banks. IPICOL invests with the ultimate goal of promoting industries in the State.

IPICOL's job starts with the identification of suitable project and moves through the phases of preparation of project report, Financial Assistance, Marchant Banking, assurance of raw material supply, development of infrastructural facilities like land aquisition, water-supply, power-supply machinery selection, etc. and completes with consultancy service from-day to day management of the new project to get the scheduled capital output.

IPICOL deals mainly with three types of projects. (1) Private sector projects, promoted by Private Entrepreneurs and assisted by IPICOL, (2) Joint Sector Projects promoted by IPICOL and private sector entrepreneur, (3) Public Sector Units (Central Government Undertaking). For the first type of project once an entrepreneur enters IPICOL with some definite ambition, IPICOL holds its grip and starts working to see his project through. During this process IPICOL does all sorts of job from selection of location to lobbying at Delhi Udyog Bhavan or IDBI, Calcutta.

The second category needs much more involvement of IPICOL. IPICOL identifies a viable project, gets a better of intent for the same and finds out a suitable entrepreneur to implement the project in joint sector. Till date 4 of the joint sector projects of IPICOL have undergone production and more than a dozen are at different stages of implementation.

For the third one IPICOL works only as a catalyst to accelerate the implementation programme. It assists in selecting the location and all types of preliminary requisites, till it comes into a definite shape. This is the purely promotional part played by IPICOL for industrialisation of Orissa. A large unit on central sector means a growth centre for Orissa. Defining this as the necleus medium & small ancilliary units will develop in its periphery. A large number of unemployed and underemployed labour can be utilised by this type of integrated development. IPICOL foresees development of industrial towns like Rourkela at Talcher, Paradeep, Koraput, Mancheswar and Chhatrapur. A port based steel plant and a fertiliser plant are coming up very soon at Paradeep. An Aluminium Unit at Koraput under the name National Aluminium Co. has already started functioning work on the wagon repair shop at Mancheswar and Indian Rare Earth at Chhatrapur are progressing rapidly. Identification of ancilliaries with backward/forward linkage to all these nuclei has already been taken up by IPICOL.

Products of 25 large and medium-scale industries promoted by IPICOL are found in the State, national and international market. Out of existing 75 large and medum-scale industries in the State 25 (Nearly 33 per cent) are promoted by IPICOL in the short span of 8 years. 37 projects with total capital investment of Rs. 95 crores and labour potential of 5,000 are at different stages of implementation. Now we are Producting Asbestos Cement Sheets, Steel Casting, Fabrication, Vegetable Oils, Seafood, Wheat Products, Soft Drinks, Yarn, Jute Twine, Paper, Watch, Motor Cycle, Cycle Tyres, Ferro-alloys, Cutting Tools, Railway Sleepers, Plant Equipments, Chemicals like H. Acid, etc., to add to all these IPICOL has promoted a hotel at Bhubaneswar and a sophisticated machine shop at Paradeep to cater to the needs of tourism development and industrial development in Orissa.

IPICOL is working hard to produce very shortly sponge iron, Calcium Carbide, Refractories, Electrolytic Manganese Dioxide, Drug Formulations explosive, Sulphuric Acid, Bleaching Powder, Oxygen gas, Electrode, Carbon paste, Paper, Straw board, Veneered board, H. T. Fastners, Trawlers, Fishing nets, welding electrodes and many more. Besides all these, IPICOL is promoting Hotels at Puri, Konark, Bhubaneswar, Paradeep and Cuttack and two Film Studios at Bhubaneswar.

After all these 7 years of service to the industries to the entrepreneurs and finally to the State it has been realised that the task of promoting industries in a capital deficient entrastructurally backword State like Orissa is a tougn job. IPICOL felt that financial assistance along could neither motivate entrepreneural ship nor economic development in the State. Therefore IPICOL developed a costumer-oriented approach and started identification of industries with backword forward linkages and suitable labour intensifying capital discouraging ancilliaries to bank upon the former. Aim is to encourage local entrepreneurs to set up ancilliaries with minimum effort and the nucleus may be an existing one on Central sector or planned to be set up on joint sector by IPICOL. IPICOL is planning to have a chemical complex each at Chhatrapur and Talcher, an Engineering and Electronics goods complex near Bhubaneswar, a cluster of Engineering industries at Paradeep and Jagatpur. A concentration of Agro-forest based industries like paper and vegetable oil at Balangir, a mining and metallurgical industries base at Rairangpur. National Aluminium Company will bring in its vain a number of industries at Koraput and Dhenkanal districts. All these growth centres are chosen according to their infrastructural facilities like nearness to the railhead, market, source of raw materials, labour availability and regional balance.

IPICOL intends to set up import substitution items like electronic goods which require import of techinical know-how. The foreigen investment bureau of IPICOL keeps contact with the non-resident Indians for import of technology and motivates them to invest in Orissa. In these cases IPICOL assists in all preliminary operations of getting clearance from respectve authorities and also invests in the project if necessary.

Industrial Co-ordination Bureau of IPICOL takes care of its consumers. Resources how vast may be alone cannot bring industrial development to a State. The Co-ordination between entrepreneurs and resources, interaction between Government incentives and the entrepreneur play a great role. ICB is the frame work within which all these Co-ordination and interaction takes place.

This new industrial policy has developed an industrial climate in Orissa which is helping IPICOL and entrepreneur to come closer. In fact during the last six months 140 entrepreneurs have been identified to set up specific projects and the spade work for the same have already been started. IPICOL is commited to give Orissa a suitable place in the industrial map of India.

Chairman, IPICOL

* * *

Development of large and medium industries in Orissa

SHRI V. PATTANAYAK

Industrialisation has a major role to play in the economic development. With abundant supplies of bamboo, timber, raw jute, sugarcane, minerals, exceptionally high grade iron-ore, manganese ore, chromite, coal, limestone, and bauxite, 480 Kms. of coast line, Orissa supports only about 0·06% of its population in industry. Orissa with 3·9% growth rate in *per capita* income as against all India average of 12·5% during the last decade, continues to be industrially backward. Interestingly the net value of output per person is higher in industry than in agriculture. Industrialisation alone can divert a fraction of the 80% of working population engaged in agriculture for agrinful employment, and thereby can increase capital output, and at the same time arrest tendency of diminishing returns in agriculture.

In 1973, there were 41 industries in the organised sector out of which 4 in Central sector, 8 in State sector, 1 in co-operative sector and rest 28 were in private sector. sector and rest 28 were in private sector. Most of the private sector projects had concentrated on processing primary products like milling grain, spinning or manufacture of cloth, paper and cement, whereas Central and State undertakings had emphasised on core sectors like steel, fertiliser, manufacture of machines and capital goods. To accelerate pace of industrial growth, Industrial Promotion and Investment Corporation of Orissa Limited was conceived. IPICOL was incorporated with authorised capital of Rs. 5 crores on the 12th April 1973 as the State Government Development Bank and management consultancy service for large and medium scale industrits.

IPICOL provides financial assistance in the form of subscription to the equity capital, grant of term loans, and underwriting of public shares. It also operates Central and State Government capital investment subsidy schemes and IDBI's seed capital assistance scheme. It receives refinance facilities from IDBI. It identifies profitable industrial projects. It does merchant banking, loan syndicating, market survey, etc. It locates suitable area for setting up industries, helps entrepreneurs in obtaining industrial licence, land, water, power and raw materials. Besides it has developed infrastructure facilities for industries in 14 developed areas, and recently identified 50 growth centres. It commissions outside consultants for feasibility studies. In addition IPICOL itself prepares feasibility reports.

After 8 years of continuous and sustained effort another 35 large and medium industries have come up in Orissa including 25 units assisted or promoted by IPICOL. Earlier trend of the private sector production has changed and the units assisted by IPICOL are producing various types of products like Asbestos cement sheets, Steel casting, fabrication, vegetable oils, seafood, wheat products, soft drinks, yarn, jute twine, paper, watch, motor-cycle, cycle tyres, ferro-alloys, cutting tools, railway sleepers, plant equipment, chemicals like H. Acid, etc. Out of 38 projects under implementation 6 are in Engineering, 6 in Metallurgy, 13 in Chemical, 7 in Agro-forest, and 2 in Marine sector.

Out of 63 units, 14 are in Puri, 10 in Cuttack, 9 in Sundergarh, 7 in Mayurbhanj, 6 in Dhenkanal, 4 each in Balasore and Keonjhar, 2 each in Koraput, Kalahandi and Ganjam, 1 each in Phulbani, Balangir and Sambalpur. Very recently a new corporation under the name Industrial Infrastructure Develpment Corporation of Orissa has started functioning. It looks after infrastructure development at selected growth centres and developed areas with a view to help in more even dispersal of industries throughout the State.

Though the number of private sector industry has doubled to 54 within last 8 years due to favourable investment climate, they are mostly on medium sector with project cost ranging from Rs. 20 lakhs to Rs. 1·00 crores Investment from outside the State is almost negligible. Capital formation in a capital deficient State like Orissa cannot help rapid industrialisation. One should attract capital from outside the State. Capital mobilisation from non-resident Indians abroad is yet another direction on which one has to work. IPICOL's initiative in this direction has resulted in identification of 120 entrepreneurs interested in setting up industries in Orissa. Out of these 120 entrepreneurs, 65 are from outside the state with aim of investing in projects of cost ranging from Rs. 40 lakhs to Rs. 90 crores. Higher percentage of entrepreneurs prefer to invest in the districts of Puri and Cuttack because of existing infrastructural advantages like availability of land, airport, railway line marketing, liaison with different agencies. However, it has been IPICOL's constant endeavour to persuade entrepreneurs to move to backward regions. As a result, districts like Mayurbhanj, Keonjhar, Sambalpur and Ganjam have also attracted considerable number of entrepreneurs, but it is noteworthy that percentage of outside investors is more in Mayurbhanj and Keonjhar than in the other districts.

IPICOL's effort to mobilise capital from Indians residing abroad has got good response. More than 10 non-resident Indians have shown interest in setting up industries in Orissa. Already a paper plant promoted by a non-resident Indian is coming up at Jeypore. This Project involves a capital investment of Rs. 20 crores with a potential of 1,200 direct employment.

Large and medium scale industries are not only capital intensive, but also time consuming. Due to rapid change in price index a thorough examination of its techno-economic viability is essential. IPICOL initiates vigorous efforts to investigate viability of industrial projects before sanctioning finance for the same. During the year 1980-81 IPICOL has submitted application to the Government of India for Letters of Intent in respect of 5 projects. IPICOL has already obtained two Letters of Intent for setting up a polyster staple fibre project and one Electronic Watch Project.

Co-ordination plays the most important role in implementation of any project. Industrial Co-ordination Bureau (ICB) has been set up to improve co-ordination among various agencies and for speeding up grant of various facilities like land, water, power and finance to new industries. The Bureau also provides guidance to entrepreneurs intending to set up medium and large industries and assists in submitting formal applications to different organisations. Delay in the schedule of implementation inflates the project cost affecting viability of the project. ICB takes necessary steps to avoid this sort of situation and helps the entrepreneurs at the time of need in solving the problems. 140 entrepreneurs have approached ICB during the last six months for guidance. Groundwork on those projects have already been started by IPICOL.

The agro-forest sector enjoys an important position in view of the unutilised vast resources. In this sector 12 mini paper plants are at various stages of implemention. The other highly capital intensive projects are a Rayon grade pulp at Paradip, 2 major paper plants at Jeypore and Koraput, a slicer unit and a medium density fibre board at Jashipur, Block Board Plant at Khurda, Core Veneer Project at Narla Road, Solvent Extraction Plant and a Vanaspati Unit are in the pipeline. Jute Twine and Sugar Projects have also a large scope within the State. Letters of Intent have been applied for 3 sugar mills. At present we have 2 Jute Twine Factories and there is further scope for 3 such units. This sector generates large direct and indirect employment besides contributing to a very large extent in the overall development of the State.

A large number of engineering and chemical projects are under production and in the pipeline to make the State self-sufficient in respect of machineries, intermediaries and consumer goods.

Orissa as a tourist paradise has come into prominence and direct air link between Delhi and Bhubaneswar has boosted up the tourist traffic to Orissa. IPICOL has also started attracting entrepreneurs to set up star hotels at important places like Bhubaneswar, Puri, Konarka, Chilika, Paradeep and Rourkela.

IPICOL's projects have generated direct employment for 10,000 skilled and unskilled labourers. and nearly double the number by way of indirect employment. Now IPICOL is planning for Engineering and Electronic Goods Complex near Bhubaneswar which has a large employment prospect.

Managing Director, IPICOL

In the field of large industries, Rare Earth Complex at Chhatrapur, Alumina Complex at Koraput, Aluminium Smelter and Power Plant at Talcher, CRGO expansion and slag cement unit of Rourkela, Fertiliser Project at Paradeep are coming up in Central sector. These projects will have both forward and backward linkages in promoting ancillaries and auxiliaries in small and medium sector. Two Charge Chrome Projects, one by OMC and the other by FACOR are at various stages of implementation. An Iron Spun Pipe Unit, a Sodium Dichromate Unit, a XLPE cable unit and a boiler piping unit are being projected in the State sector. To meet the growing need of both weavers handloom and powerloom, 10 spinning mills are at various stages of progress.

Orissa has easily available surplus land. It enjoys comfortable power situation. Water for industries is no problem. With the new industrial policy and various concessions now granted by the Government. the situation is more than ripe for rapid industrial growth.

Industrial Promotion & Investment Corporation of Orissa Ltd.

(A GOVERNMENT OF ORISSA UNDERTAKING)

IPICOL HOUSE, JANAPATH,
BHUBANESWAR-751007, ORISSA (INDIA)

Telephone: 52428
Telegram: IPICOL
Telex: 0675-204

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* 15% STATE SUBSIDY on fixed capital investment subject to a limit of Rs. 15·00 lacs.
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IPCOL Provides:

* SINGLE POINT contact forum
* Facilities for investment by NON-RESIDENT INDIANS
* INFRASTRUCTURE facilities & escort services
* TECHNICAL CONSULTANCY services
* MERCHANT BANKING

AND

* IDENTIFIED 150 new projects
* IMPLEMENTED 57 industries out of which 24 are under production
* DISBURSED Rs. 20·27 lacs as seed capital to technocrats till date
* SANCTIONED share capital to the tune of Rs. 1,010·96 lacs
* SANCTIONED term loan amounting to Rs. 865·22 lacs
* BRIDGING FINANCE of Rs. 202·22 lacs for immediate requirement
* ARRANGED outright grant of Rs. 7·66 lacs as subsidy for feasibility reports

In short a very lucrative scheme, the entrepreneur just cannot afford to overlook before any investment decision.

Communication in Industrial Development

SHRI GUMMADI APPARAO

The major goal of the industrial sector is to increase the production to meet the growing demands. This can be achieved through efficient management, maintaining harmony with the industrial workers through good public relations, adequate communication facilities. When we look at our industrial organisations not only the production is low but there exist a lot of unrest and frustration among industrial workers. Why is it so and what causes the frustration and unrest among the industrial workers ? A social scientist can view the following reasons for unrest among the industrial workers : (I) Inefficient management, (II) Lack of proper co-ordination, (III) Inadequate communication, (IV) Lack of training facilities, (V) Non-involvement of representatives from different types of employees in planning, (VI) Lack of good human relations, (VII) Unforeseen consequences of improper handling of employees, (VII) Uncared social and psychological needs of the employees.

These are directly and indirectly contributing to the poor production and thus lead to inadequate growth and development in our industrial sector. Let us examine some of the ways and means to improve the industrial growth. Management in any organisation refers to the arrangement of men and materials in an ideal atmosphere to achieve the objectives. The men at different hierarchical levels should be in a position to provide guidance and counselling at all stages to enable the industrial workers to work for achieving the desired goals of the organisation.

Suitable personnel can be recruited through direct recruitment to have the best available intellectuals and to get the best service from them for the organisation. Provision to promote the existing staff to the higher grades be made to boost up the morale of the organisation and thereby avoid frustration among the industrial workers. The arrangement of materials implies the working tools, machinery, physical facilities, etc. The organisation has to provide the latest equipment and working tools to enable the workers to bring out the desired or targetted output within the stipulated time. Physical facilities like sitting places, comforts also contribute to the rate and speed of the working of the industrial workers.

Proper planing including the need based and time bound plans and timely implementation of these plans do enhance the growth in industry. Involvement of personnel representing each hierarchical stages of the organisation in planning would help identifying the pros and cons of various programmes and modify them accordingly.

Establishing a good harmony between the management and employees in industry or any organisation is the most difficult task. But the success of the organisation depends how good the organisation is in building harmony between its management and employees. The first and foremost thing that satifies the employees is the attractive wages. When once the organisation pays the handsome salary to its employees it can extract good outturn from the employees through their dedicated service. Rewards for hard work through incentives in the form of application and monetary benefits would also stregthen the bonds of workers with the management, Some times little appreciation like "you are doing very good job Mr. . . .go ahead" will have very good impact in making the employees psychologically happy and work with enthusiasm. This also introduces the competative spirit among the industrial workers. Such appreciations will not cost much finacially to the organisation but it adds to the industrial progress through dedicated service from the employees. Good physical facilities in the working place; transport facilities to attend the work timely; medical facilities to ensure sound health of the employees, accident relief benefits, recreation facilities etc. would also contribute to the good employer and employee relationship.

Communication to play a vital role in creating better understanding between managerial staff and workers in industry. Communication in any organisation refers to the conveying policies, programmes including objectives, plan of work, targets, etc., to its employees. These are mostly Conveyed through formal communication madia viz orders, circulars, memorandum,-letters, announcement etc and informal communication through verbal instructions, etc. to the employees in vertical and horizontal commmunication patterns. Vertical communication pattern refers to formal or informal communication from top to bottom in an organisation. Whereas the horizontal communication pattern confines to the employees of equal grade. Let us examine how communication can contribute in creating an ideal atmosphere for increasing industrial growth. Interpersonal relations : when people work together and interact each other they develop friendly or professional relationship. This relationship would lead to formation of interpersonal networks consisting cliques, groups, societies, unions etc. The basis for this sort of segregation would be the rank and file, profession, caste, neighbourhood nativity (place, state they belong), common working place etc. The network in which people are connected and having scope for outside influence and interference called radial network. The radial network does not keep all the members interconnected. The network in which members are interconnected to each orher is called close Knit network. A thorugh understanding of these networks would help solve the problems. If the organisation could identify the key influentials of these networks hear them on problems causing frustration and unrest among the workers and suggestions to overcome these ploblems are looked into, that itself would solve one of the major problems of industrial growth.

Communication gap—It is quite often said in all organisations that this trouble is due to communication gap. Some times the management decides certain new policies and changes in the existing terms and conditions without prior intimation and or participation of the employees and the same is not communicated to them unless and until a protest is made by the employees. The gap between the decision making and the implementation of these decisions ignoring the consequences of such decisions on employees would lead to the Ill effects of communication gap. This situation in which employees unawareness of the recent changes in policies and programmes etc., would lead to protests, strikes etc. Timely communication and participation of employees representative in decision making would help in solving this problem.

Distortion of message—The organisation some times amends the existing rules and regulations. When these amendments trickle down from top to bottom of the heirarchiel stages there is every possibility at each of the stages a part of the message gets lost and thereby the measage does not reach the employees in to to. This half knowledge also caused due to distortion of message create misunderstandings and unrest.

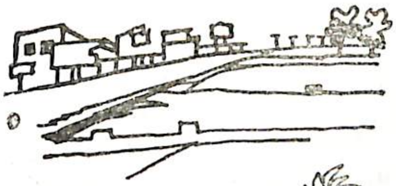
Dialogue with employees—The organisation has to keep its employees well informed about the changes to be made in programmes, terms and conditions and also listen to the employees problems through frequent dialogues. This would help in creating oneness and belonging among the management and employees.

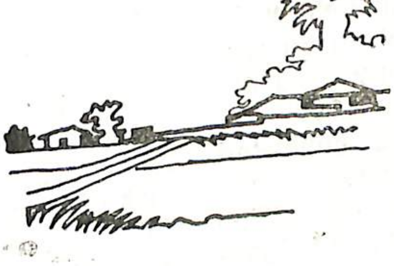
Achievement motivation—The employees need to be motivated towards achieving the targetted output in industrial sector through proper educative measures. A mutual understanding between the management and the employees would enable the employees to work with dedication. This would also avoid situations like work to rule. The achievement orientation of employees would also lead to successful economic behaviour of the industrial sector.

The organisation need to have adequate facilities to provide in plant, on job and in-service training to keep the employees abreast with latest technological developments. The inservice training to employees would help in acquiring new skills and developing confidence to handle the equipment and also to attend the new tasks assigned to them from time to time. Selection of employees for training very often subjected to criticism and cause dissappointment among the emp'oyees. The best way to slect the employees for training is to identify the training needs of the employees working in specialised areas like management, research, production, service, etc. There are different ways to identify the training needs. Few of them which are easy to operate are described briefly; (i) on job supervision—supervise the employees on job at their work spot and decide whether a particular individual needs training to improve his knowledge or skill, etc. (ii) Scrutiny of records—Examine critically the progress reports of the work done by the employees and identify the areas in which the employee (s) require training (iii) Remarks of supervisory staff—supervisors can indicate the defects of employees handling the Job assigned to them. If the organisation could identify the right person to train and make use of his knowledge or skill gained during the training the industrial out put can be increased substantially.

As the behaviour of any individual can be influenced by environmental factors the employees of the industrial sectory can also be motivated and put them on track of the right path. Industrial growth can be increased multifold provided the organisation can realise the importance of efficient management, proper communication, good personal relations with the employees and providing adequate facilities to the employees. When once this desirable atmosphere is created in the industrial sector, the major problem of continued unrest among the industrial workers can be solved and it further facilitates the increased industrial growth and development.

C. R. R. I. Cuttack-6





Industrial Development—
A Key to the modern agriculture

SHRI H. P. DAS
AND
SHRI A. PATNAIK

Agriculture is the most primitive culture of the primates. Since ages, it has helped mankind to defeat the demonic Malthusian laws and to which we owe our existence, however shaky it may be. A saying—"Agriculture serves you three times a day" has stood the test of time and has in the process stood by the millions who face hunger, poverty and scarce nutrition that inflicts us. We the poorest of poor had in the past and in the present as well, a feeling of its enduring struggle to rescue us from complete disaster. It is the basic truth that Agriculture is the backbone of Nation's economy. Thus we can achieve economic independence only when we take up agriculture as a commercially viable unit which in turn depends directly on the modernisation of agriculture.

No one can deny the fact that ours is one of the biggest agricultural country in the world with all the natural resources. The cultivated land of our country amounts to 172,306 thousand hectares (1977-78) out of which foodgrains are cultivated in 128,122 thousand hectares land, especially rice is cultivated in 40 million hectares. The total production of food-grajns is 131·4 million tonnes (1978-79) as per the data available. The fact that our agriculture has been slowly gaining stability was clear during (1972-73) drought when over 97 million tonnes were produced. The average foodgrain production is no doubt increasing as seen from the data i. e, 104·7 million tonnes in 1973-74, 121·0 million tonnes in 1975-76 and 131·4 millions tonnes in 1978-79.

During the last three decades, our agricultural production has increased at the average rate of 2·7 per cent per annum, what we required all along and require to day is a growth rate of around 4 percent which has also usually been the plan target. This may be regarded as our greatest failure during the plan periods under review. This decalration in the agricultuyal growth rate has meant great set back to the Indian economy as a whole. Many of our economic problems can be traced to this declaration.

The eastern part of ths country which include the states of Assam, Bihar, Manipur, Tripura, Orissa and West Bengal accounts for 45 per cent total rice area and contribute 43 per cent of the total rice production of our country. Specially looking to the position of Orissa 80 per cent of the population depend on agriculture as their source of income for livelihood. The total cultivated land is 7·931 thousand hectares and production of food grains is 5726·0 thousand tonnes. Rice being the principal food is cultivated in 4·4 million hectares, whereas average production is only 1,007 kg/ha, which is much less in comparison to other neighbouring states. This proves that the average production of our state as well as our country has not shown much promise. Hence, the area of cultivation remaining unchanged, we are required to raise the level of production of agriculture.

The lower productivity can not be artributed to adverse agro-climatic conditions in our country. Moreover, there is no lack of knowledge or expertise to successfully introduce the technology of scientific farming nor is there any dearth of the requisite inputs. In fact states like Punjab, Haryana, Western U. P., Tamil Nadu and Andhra Pradesh have already adopted modern methods of agricultural practices and have recorded major break through in augmenting their production manyfolds afflate. W. B. also registered substantial improvement in production of wheat and rabi rice in the same way. But by and large, Orissa has been lagging behind in the national effort to increase per hactare yield.

"Due to certain reasons, the cultrvations in our agriculturally under developed areas, including eastern India, have not so far been able to take advantage of modern technology of farming. They have to be assisted to adopt modern agricultural practices. The task of regeneration of our agriculture is so gigantic that there is need as well as scope for joint and concentrated effort by Government, Semi-Government agencies and businessmen. Above all the indusfry play the key and important role in modernising the agriculture.

The commercial type of agriculture with its high level of yields is possible only if the farmer finds it profitable. The two most important factors which affect his profitability relate to the cost of inputs like chemical fertilizers/pesticides and the selling price of the produce. The latter is very much dependent on the purchasing power of the consumer and the farmer on the availability of a strong industrial base in the country; it should be emphasised that a modern agriculture cannot develop in isolation of the industrial development of the country.

We have failed to maintain the momentum generated by the High Yielding Variety Programmes, largely because we have not been able to meet the farmers' requirment of the inputs of agriculture. Most important of those inputs is the fertilizer, the farmer in India pays more for these than his counterparts in most other countries. Non-availability and higher cost and fertilizer discourage the farmers from going in for High Yielding Varieties. In the case of fertilizer, we have at least accepted the principle of producting them in targetted quantities, we have no such clear idea with regard to our requirments and production of other inputs. Keeping in view of the importance of the application of fertilizer, the concerned industry should be developed to provide the farmers their required amount in right time and in low cost such that most of the farmers can make the best use of the fertilizer in developing the agriculture.

The problem of pests and diseases has become more serious in intensive cropping systems. Quite often the plant protection measures are ill timed and ill directed. Various insecticides, pesticides, fungicides, weedicides are the modern medicines and methods for plant protection against insects and diseases that destroy the precious crop. Also unwanted herbs and weeds prevent the healthy growth ot the plant. Right selection in right proportion of a particular insecticides for particular crop with its right use is the most essential in modern farming technique. But most of our farmers are not in a position to use these medioines due to its high cost and non-availability. The concerned industries besides their production of the medicine, should take care of the fact that these are widely spread over the country and made available at the farmers' field with the minimum cost. Emphasis should be given on the production of these medicines from the agricultural development point of view in stead of producing only for profits at the cost of farmers.

The farm machinery is a very important input in that it can drastically reduce the cost of production and increase the consequent profits in case it is judiciously applied. The role of farm machinery in boosting the agricultural production cannot be over empasised. Eastern India has lagged far behind several other states in respect of incorporation of modern agricultural implements and farm machineries into agriculture. In Orissa and other eastern palts, wooden ploughs are still in use of most of the farmers and about 9 million steel ploughs will be required there if the wooden ones ate to be replaced. The use of different machineries such as, disc harrow, land planner, hand weeder, sprayer, dusters, seed drills, power thresher, paddy transplanter, tractors, power tillers, etc. is very low in this region. Though the research on agriculture have involved a number of machineries, these are not put to use in the field satisfactorily. The industries should come forward to mass-produce these machineries and make available to the farmers in a standard rate. The development and production of improved implements will lead to the agricultural development. Agro-Industries should take important role in machanising farming.

Water is the most important factor that rule the agricultural world. Besides the monsoon rain, farmers have to depend upon the irrigation, which also depends upon the scientfic ways and means. The number of dug-wells, end shallow and deep tube-wells operating in eastern India is very low, although the ground water resources are abundant in this region. The minor irrigation based on the scientific finding is highly beneficial for the farmers. Different scientific device have been produced by the industries to facilitate the irrigation system to run efficientty. Starting from the power-supply up to the ferrocement semi-cylindrical lining in channels for economic distribution of water without seepage, industry has to play a good role in irrigation to develop agriculture.

Industries like Rice Mills, can work as rural institutions in leading the rice growers in adoption of new technology for production, protection and intensification of crops. Sugar mills in Maharastra and Amul in Gujarat has shown the way. Since farmers have close regular contacts with rice mills, it would be possible to take up scientific and area development schemes for economic development of farmers. However, rice mills could efficiently participate in the speedy implementation of irrigation development schemes, construction of tube wells, lining of channels, as pioneer contractors for improved agricultural development. Besides the mills could demonstrate, the utilization of improved agricultural implements, equipments etc. and cultural practices with a view to popularise them among the farmers. They could also motivate the farmers in adopting improved package of practices for better crop production and also desciminate the recent research findings for crop production protection and post-harvest technology.

It is interesting to note that while the technological advances are important, they alone cannot solve many of our agricultural problems. Agriculture should not be viewed in isolation from our overall economic growth which has important implications for the purchasing power of our people and for the price which the farmer gets for his produce. The slow rate of our overall economic growth including the rate of industrial growth constitutes a most serious constraint for our agricultural development. In the view of the above facts, it Is difticult to focus the future prospects of major advances in Indian agriculture in the years to come.

Agriculture should not be only regarded as an instruments for providing food to our large population even more important is its role in increasing opportunities for gainful employments. The National Commission on Agriculture has calculated that nearly 30 per cent of jobs in the rural sectors may have to come from small scale and agro-industries based on agriculture and animal husbandry. By the mechanisation of agriculture there would be a diversification of labour use. For example in a country like United States, although only 5 per cent of people may be employed in the physical operation ot farming, nearly 50 per cent are employed in industry and business activity supporting agriculture. Therefore, the process of modernisation does not mean replacement of man with machine but should lead to improved efficiency, reduced drudgery and an all round Improvement in the economic well being of our people. So the rapid industrialization will lead to enhancement of the inherent capability of agriculture to develop itself commercially basing on the modern scientific technology.

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Khadi & Village Industries in Orissa : An appraisal

Dr. B. SAHOO

India's industrial landscape is studded with innumerable small and cottage industries interspersed by a few but increasing number of large industries. The survival of millions of village industries in the face of the onslaught of the large industries suggests the inherent vitality, relevance and appeal of theirs to the socio-cultural mores and economic setting of the rural India. A predominantly agricultural economy characterized by seasonal unemployment and under employment, joint families in rural areas finding spare time from agricultural chores and a cohesive rural society surviving on the basis of mutual reciprocity make village industries eminently suitable to the environment. The thrust of modernisation through large scale production with sophisticated technology have raised such issues as a destruction of village industries adding to the vexing problem of unemployment by deprivation of the poor agriculturists and artisan from their supplementary or main income decline of village industries sapping the vitality, variety and beauty of the village life spread of large industries militating against the objective of building a decentralized egalitarian democratic society possibility of harmoniously combining small village industries and large modern industries without impairing the growth of the economy.

Answer to these issues can be found in the analysis of the trend of growth of our industrial economy and of the imperatives of our socio-economic setting.

Section II disissues the growth and present position of small and village industries in India against the relevant economic backdrop and section III highlights the growth and problems of Khadi and Village Industries in Orissa and suggests remedial measures.

Of the total work force of 260·92 millions in our country, wage and salary earners and self-employed persons constitute 38·5 P. C. and 61·5 P. C. respectively. Wage and salary earners in the organised sector, agriculture and non-agriculture unorganised sector from 9·5 P. C., 22·3 P. C. and 4·4 P. C. of the total work force respectively. Non-cultivator self-employed and cultivators form 12·4 P. C. and 49·1 P. C. respectively of the total work force[1]. Land distribution in our country is very much skewed. 35·8 million holdings (50 P. C. of the total are less than one hectare each). Thus, millions of agricultural labourers and self-employed persons stand in need of some part-time work to supplement their income. Unemployment in rural India is estimated at 16·5 millions and only 10 P. C. of the additional annual labour force of 5 millions get absorbed in the organised sector. All these suggest the importance of the development of agriculture and the unorganised non-agricultural sector.

Industries in India are categorised as large, medium, small and cottage industries, the latter are sometimes termed as household or village industries. A unit is termed cottage when (i) production is conducted at the place of residence, (ii) employs mostly family labour, (iii) it is run by mannual labour, and (iv) marketing of the product does not extend beyond the locality. In short village industries or cottage industries cover non-factory and unorganised units. Small scale units differ from cottage ones on the ground that unlike the latter the former use modern machine with power.

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[1] Report of the Study Group on wages in const. and prices, May 1978, P. 112.

Small scale industries have come to occupy an important position and are showing impressive rates of growth. They constitute 90 P. C. of total registered factories and account for 38 P. C. of total production in registered industrial sector. The net value added per rupee of fixed investment in small sector is 0·97 against 0·3 in large scale sector[1].

Small industries account for 8·5 P. C. of forced capital, employ 50 P. C. of workers and produce 1/3rd of industrial output. Large factories account for 43 P. C. of fixed capital, employ 7 P. C. of total workers and produce 17 P. C. of value added against 33 P. C. by small industries. Number of small units had risen from 1·4 lakhs in 1972 to 5·3 lakhs in 1975 and capital invested went up from Rs. 1,054 crores to Rs. 15 crores during the period and output and employment nearly doubled[2].

Progress of the Small Industries, Rural Industries and Khadi and Village Indusfries shown in Table 1 to 3 amply suggest the prospect of these industries, provided proper patronage is given.

TABLE 1

Progress of Small Industries

	1966	1975	P. C. increase
No. of registered Units ..	120,000	500,000	317
Employment (In lakh) ..	2,93	55	90
Forced Investment (Rs. in crores) ..	5,48	15,00	174
Pro duction (Rs. in crores) ..	29,54	1,10,00	272

Source—Report, Small Scale Industries, 1975-76, Development Commissioner, Small Scale Industries, New Delhi, P. 3.

TABLE 2

*Progress of the Industries under Rural Industries Projects Programme**

	1965-66	1974-75
Number of Units assisted (Cumulative) ..	4,583	51,200
Value of Investment (Rs. in crores) ..	2·56	12,400
Value of Production (Rs. in crores) ..	3·02	10,000
Employment ..	16,685	207,000

Source—Report of Small Scale Industries, 1975-76, P. 6.

*Programme was in operation in 111 districts

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1. Report of Small Scale Industries—1975-76, Government of India, P. 3
2. L. Jayalakshmi "Small Sector—The parallel for Unemployment" Yojana 1, Sept. 1978, P. 16

TABLE 3

Progress of the Khadi and Village Industries under K. V. I. C.

	Cumulative Grant loan	Production (Rs. in crs.)	Sale	Employment (Lakh)			Earning (Rs. in crs.)
				Full time	Part time	Total	
Khadi, 1971-72	61·08	27·70	29·05	1·21	8·42	9·63	15·52
1975-76 ..	81·06	46·73	50·30	1·13	7·11	8·24	23·83
P. C. Charge	(32·11)	(69·68)	(73·15)	...	..	..	(53·54)
Village Industries, 1971-72.	28·51	93·69	81·24	1·23	7·15	8·38	16·30
1975-76 ..	38·84	148·48	151·58	1·84	97·3	11·21	35·21
P. C. Charge between 1971-72 and 1975-76.	(36·23)	(58·48)	(86·58)	(49·59)	(31·05)	(33·77)	(116·21)
Khadi and Village Industries, 1971-72.	89·59	121·39	110·29	2·44	15·57	18·01	31·82
1975-76 ..	121·56	195·21	201·88	2·97	16·48	19·45	59·04
P. C. Charge between 1971-72 and 1975-76.	(35·68)	(60·01)	(83·04)	(21·72)	(114·00)	(8·00)	(85·89)

Source—Statistical Statement to Annual Report, 1975-76, KVIC, P. 11—111

Industries covered by Khadi and Village Industry Commission in India are, cani oil, village leather, cottage, match, manufacturing of canegur, palmgur, non-edible oils, soaps, hand paper, bee keeping, village pottery, fibre, carpentry, blacksmithy, lime manufacturing, gobar gas, collection of forest plant and fruits for medicinal purpose, shellac, manufacturing of gum, katha, fruit processing, bamboo and cane, manufacturing of alumunium utensils in addition to the handloom and Khadi.

Orissa Khadi and Village Industries Board deals with industries like soap, village oil, carpentry and blacksmithy, cottage match, bee keeping, lime, palmgur, leather, forest plant, shellac gums tresirs, kalha, fruit processing, gur-khandsari, gobar gas, village pottery, fibre, cane and bamboo P. C. P. I., hand made paper. * The Board finances mostly co-operative societies and some institutions and individual institutions include departmental concerns. In 1976-77 the number of co-operative and institutions financed was 1,215 which rose to 1,358 in 1977-78. Individual financed number and 925 in 1976-77 and 1,392 in 1977-78. Number of co-operative societies working rose from 853 in 1976-77 to 392 in 1977-78. Number of societies defunct under liquidation and close were 659,84 and 5 respectively and 218 societies did not convince production.

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* Orissa Khadi and V. I. Board has taken up Khadi Programme through two registered Khadi Institutions till 1976-77. Two more got Khadi Certificate in 1977-78.

The amount outstanding against the societies/institutions of individuals as on 31st March 1977 works out to Rs. 23,76,79,000 out of which an amount of Rs. 1,23,54,151 has become overdue. About 50 per cent of the outstanding loan is overdue.

TABLE 4

Percentage of overdues to outstanding loan 1977-78

Cottage Match Industry	..	10·20
Handmade paper	..	59·02
Carpentry and Blacksmithy	..	12·61
Nonedible oil and soap	..	73·00
Fibre Industry	..	24·00
Lime	..	12·00
Palm gur	..	44·00
Village pottery	..	32·00
Gur Khandsari	..	71·00
Cane and bamboo	..	24·00
Leather	..	49·00
Village oil (Industry)	..	39·00
Fourst Plant	..	1·00
Khadi	..	33·00

Source—Annual Report of Orissa Khadi and Village Industries Board, 1977-78.

Outstanding loan against Khadi was Rs. 7,94,841. Amount due to the Khadi and Village Industries Commission as on in 1977-78 stood at Rs. 2,78,07,312.

The per formance of the Village Industries financed by the Orissa Khadi and Village Industries Board is very much fluctuating. The production, sale value and employment (full and part time) of village industries recorded a growth of 54·5 per cent, 108 per-cent and 115 per cent respectively during 1969-70 and 1970-71. The production, sale value and employment of Khadi and Village Industries recorded small rise in 1976-77 over 1975-76, but they recorded appreciable growth in 1977-78 over 1976-77 (Vide Table 5).

One of the most dismal feature of the village industries is that the wages paid to full time workers are very low and disheartening in many industries. As the table shows they vary from as low an annual amount of Rs. 244 to as high as to Rs. 2,849. Khadi, fibre and soap industries pay relatively handsome wages. The part time and casual earning per worker in industries is also very nominal. These suggest except for a few industries the village industries covered and helped by the Board do not offer substantial earnings to the people concerned.

In Orissa during 1971-72 and 1975-76, production and employment in Khadi and Village Industries rose from Rs. 281·63 lakhs to Rs. 481·14 lakhs (71 per cent), 0·46 lakh to 0·50 lakh (8 per cent respectively against the corresponding increases of 60 and 8 per cent in India.

In India in 1971-72 the total grant and loan outstanding against Khadi and Village Industries was Rs. 89·59 crs. when the value of product was Rs. 121·39 crores. In 1975-76 the corresponding figures were Rs. 121·56 crores and Rs. 195·21 crores. The ratios between production and grant and loan were 1·33 : 1 in 1971-72 and 1·60 : 1. In Orissa in 1971-72 outstanding grant and loan was Rs. 83·6 lakhs when production valued Rs. 281·63 lakhs to 1976-77. The corresponding figures were Rs. 155·00 lakhs and Rs. 327·29 lakhs. The ratios between production and grant and loan were 3·33 : 1 in 1971-72 and 2·11 : 1 in 1976-77[1]. The figures suggest that in Orissa loans and grants used per unit of production is less than the Indian average. This may be due to either non-availability of more assistance from the Board or the artisans greater dependence on their own resources.

Though the general performance of the Khadi and Village Industries is not very much encouraging yet lime units are doing marvellous. The Khadi and Village Industries Board covered gum and resin industry, shellac industries and Kath industries in 1976-77. The first two industries yeild very good work for the tribals.

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[1] Derived from the Statistical Statement to Annual Report KVIC, 1971-72 and 1975-76 and Annual Reports of Orissa Khadi and Village Industries Board, 1971-72 and 1976-77.

The Board took a policy decision to form block level artisans multipurpose co-operative society for each block merging therewith the existing societies so that all viable village industries within a block can be promoted under the supervision and administration of the block level societies and defunct societies are revived and weak ones strengthened. Accordingly, 88 block level artisan multipurpose industrial co-operative societies were formed. This measure is intended to provide fuller employment to the unemployed and under-employed rural mass.

Problems faced

Problems faced by village industries in Orissa are different for different industries.

Gur and Khandasari industries need replacement of diesel engine by electric motor for cost reduction and sufficient working capital for regrooving and surfacing machines for B. D. units.

Lack of adequate supply of raw materials, i. e., iron and timber, absence of State Policy in respect of exemption of sales tax on goods manufactured by the units and absence of Government orders on priority basis are main problem for carpentry and blacksmithy industries.

There is no technical staff under the Board to give timely guidance to artisans in the field.

The problem of the non-edible oil and soap industry is insufficiency of technical staff as there was only one Supervisory in 1977-78. Soap industry at Udyogpuri was making loss.

Kankar lime that can be used for constructional works and road stabilisation and massive stone lime for purification and manufacture of bleaching powder, fertiliser and paper face competition from cement and other products.

The units should be given first chance for quarry lease and shell collection lease. Shortage of water felectricilly are the other constraints. Cottage match industries suffer from (1) mismanagement of societies, (2) lack of proper supervision and timely action in field of administration, (3) block of funds in credit sale, and (4) lack of adequte technical hands at the district level.

Measures to be adopted

Measures need to be taken to tone up the village industries may be noted.

(I) Supply of raw materials at reasonable prices be ensured along with adequate finance.

(II) Management of such institutions must be entrusted to more dynamic persons who have the imagination needed to design and produce plenty of varieties and also possess the necessary organisational ability for the task. Mr. Kurot Koti of Dharwar and Mrs. Papal Jaykar of the Handloom Baord are examples of such persons.

(III) The scope of the KVIC has to be extended to include large varietles of industries. Some 66 types of industries have been listed by V. L. Mehta which include food products (cane and fruits and sea foods), beverages, tobacco and tobacco products, malt liquor, cotton textiles, wool silk and synthetic fibre textiles. Textile products (weaving apparel and fortured) coir (spinning and products), wood, wood products, paper, paper products, printing and publishing, book binding, etc., leather and leather wore fur and horn products, rubber plastic petroleum and coal products, chemical and chemical products, paints and varnished matches and fire works, non-metallic mineral products (red clay works, brick making lime and plastic china wall, structural stones, conct. and shell products), metal products and products except machinery and transport equipment, bell metal, fabricated metal products, hand tools, hardware, enamelling, japanning, galvanising plating and polishing metal products, machinery and machine tools and parts except electrical machinery bullock cart improved with rubber tyres and bicycles.

Orissa Khadi and Village Industries Board should expand its activities on the line suggested by V. L. Mehta.

(IV) Handloom cloth can be made cheaper and sold better if some restriction can be put on the sale of mill made cloths in rural area. The share of the decentralised sector in the total cotton cloth production was 47 P.C. in 1972 which was expected to rise to 53 P. C. in 1978.

(V) The greatest hurdle to the products of village industries in the lack of effective marketing organisation. A net work of co-operative marketing societies in village properly linked with those in towns and managed by sincere honest and trained hands is imperative for the development of village industries.

Conclusion

Expansion of Khadi and Village Industries was stressed perhaps to realise the Gandhian ideal of peaceful self-reliant village societies. Whatever may be the socio-cultural motive of this move, the economic rationale, viz. providing opportunities for full and part time employment to vast rural mass with shortest possible capital and utilising their hereditary talents cannot be questioned.

Galbraith noted with agony "Given the decision to have modern industry much of what happens is inevitable and the same" Capitalist corporation and communit firms under the imperatives of organisation come together as oligarchies of their own members and in collusion with the State power replace market mechanism by administrative mechanism" endangering the liberty of the individuals.[6] Development of village industries commends itself as the promotor of decentralised economy—a repository of peace, prosperity and equity. The Industries to be promoted and the manner of help, however have to be reconsidered to make them viable and incontestable within a time period.

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[6] J. K. Galbraith "The Future of Industrial System in Readings in Industrial Finance-ed) L. C. Gupta, PP 420—42)

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The Film Development Corporation of Orissa Ltd.

SHRI P. K. MISRA

The Film Development Corporation of Orissa Ltd. has been incorporated on the 22nd April 1976 in accordance with the Companies Act, 1956 with a modest share capital of Rs. 5·00 lakhs. The First meeting of the Board of Directors was held on the 5th June in the same year with fhe Chairmanship of the then Chief Minister. Thereafter the Board of Directors was reconstituted in February 1977 with the then Industries Minister as Chairman and a part-time Managing Director. In may, 1978 the Corporation which had remained on a dormant stage has been re-organised with Minster, Industries as Chairman and a full-time Managing Director has been appointed by the reconstituted Board of Directors with a view to revitalise the Corporation and to play an effective role for development of film industry and achieve its various objectives.

The aim and objectives as spelt during the first meeting of thts reconstituted Board of Directors held on the 25th May 1978.

(*a*) Extending financial assistance and guarantee to private entrepreneurs for construction of low cost Janata Cinema Houses in rural and semi-urban areas.

(*b*) To set up good cinema houses by the Corporation in important places of the State such as Cuttack, Bhubaneswar, Rourkala etc. to augment its own resources.

(*c*) To set up a studio and laboratory, dubbing, editing and music recording complex.

(*d*) Making available outdoor shooting and recording equipment.

(*e*) Payment of subsidy to producers for promotion of Oriya films.

(*f*) Extending financial assistance to producers for promotion of feature films in Oriya.

(*g*) Compulsory screening of Oriya films.

(*h*) Holding of Regional film festivals

(*i*) Hoiding of Chiidren's film festivals

In order to achieve these objective, the Government have decided that the production of films and constructron of cinema houses would be taken as industrial activities and they can be registered with District Industries Centres vide Directorate of Industries Circular No. 149 (13), dated the 21st February 1979 to enable the enterepreneures for obtaining institutional finance and allotment of industrial quotas on priority basis. The Film Development Corporation is to study and certify the feasibility prior to registration.

For the first time, various activities of the Corporation have been taken up as a plan programme in a phasewise manner during the 6th Five-Year Plan period. The Planning Commission has been pleased to recommend an outlay of Rs. 2·00 crores for allotment in favour of the Corporation during the 6th Plan, 1980/85, Rs. 50·00 lakhs for the annual plan, 1981-82 with a view to enable the Corporation to implement the various promotional schemes.

The Film Development Corporation of Orissa has taken the lead in co-financing schemes for production of films and construction of cinema houses. Orissa has also taken the lead in declaring these as industrial activities and by including them in the small scale industries list, making them eligible for assistance from financial institutions. The Film Finance Corporation in a meeting in Bombay has suggested other States too should follow Orissa's footsteps.

1·1. Exhibition sector

Janata Cinema House—The Corporation has developed and designed Janata Cinema Houses with estimated project cost of Rs. 4·00 lakhs. These will be located in semi-urban and rural areas by the private entrepreneures with a sitting capacity of 600 having provision for further expansion up to 800 in future. Out of total of Rs. 4·00 lakhs the Commercial Banks/Financial Institutions will provide loan up to 70 per cent and the Corporation will provide 15 per cent seed capital loan to the private entrepreneur and the blance 15 per cent will be borne by the entrepreneur. The Corporation will extend guarantee for the loan to be availed by the entrepreneurs. It is envisaged that 62 such halls will be promoted during the 6th Plan Period. Our Corporation has selected 10 entrepreneurs to set up Janata Cinema houses in different areas and construction of 5 Cinema Houses are in progress.

1·2. In collaboration with the National Film Development Corporation, Government of India, a scheme has been formulated of extending loan for construction of cinema house on following terms:

(*i*) *Loan from National Film Development Corporation*—50 per cent of the project cost subject to the following limit 50 per cent of the total cost subject to maximum Rs. 1·00 lakh for open air theatres in rural areas.

50 per cent of the total cost subject to maximum of Rs. 3·00 lakhs for theatres in semi-urban areas.

50 per cent of the total cost to maximum of Rs. 7·5 lakhs for urban areas.

(*ii*) Entrepreneur's participation 50 percent of the project or the balance amount required.

(*iii*) Film Development Corporation will extend guarantee on behalf of the entrepreneurs.

(*iv*) Entrepreneur may avail such loan for construction of new cinema houses for renovation or completion of incomplete houses, etc.

(*v*) National Film Development Corporation/Film Development Corporation will have the first option to 50 percent of the playing time in such theatres.

Loans Rs. 40·46 lakhs has since been sanctioned by N. F. D. C. The loans will be released through O. F. D. C. and will monitor the progress of work.

1·3. Construction of own Cinema Houses.

In order to augment the resources of the Corporation it has been envisaged to construct 5 sophisticated cinema houses during the 6th Plan period in important places like Cuttack, Bhubaneswar, Berhampur, Sambalpur and Rourkela. The construction of the cinema hall at Buxibazar is being taken up for which Rs. 15 lakhs has been sanctioned by Andhra Bank out of the estimated project cost of Rs. 20 lakhs. It is envisaged that a mini hall will be attached to the main hall for exhibition of art films, children's films, scientific films from time to time. The required land measuring 0·801 acres at Buxibazar, Cuttack has been taken on lease on 10th October 1979. The Film Finance Corporation has agreed to finance the mini hall project.

1·4. Compulsory screening of Oriya Films.

On the recommendation of the Film Development Corporation, the State Government have taken steps to amend section 5 of Orissa Cinema Regulaiton Act, 1954 in order to make screening of Oriya Film a mandatory provision in the cinema houses of the State. The Home Department in their order No. 63298, dated the 4th December 1980 have already notified that all cinema houses of the State are required to exhibit Oriya film for a minimum period of 6 weeks during a year.

1·5. Liberalisation Licensing procedure

The Corporation has taken with the Home Department of State Government for liberalisation of the various licensing procedure for construction of cinema houses as follows:—

(*a*) Licensing Board will be formed in every district for issue of licence.

(*b*) Licence will be issued under the categories 'A' 'B' and 'C' for a period of 5 years, 3 years and 1 year, respectively. 'A' Class cinema houses will have to provide the air-conditioning facilities or air-cooling facilities.

(*c*) Application for construction of cinema houses would be invited twice a year such as January and July.

(*d*) The entrepreneur after obtaining permission for construction of cinema house will have to complete the same within 2 years and obtain licence.

2·1. Production Sector

(a) *Loan to producers* The—Corporation will help the producers of the State by extending soft loan towards equity to enable them to avail loan from Commercial Banks, Financial Institutions. The Scheme for extending soft loan will be operated in the following manner :—

Film Development Corporation will extend soft loan to producers at 1 per cent interest to enable them to raise the equity for availing loan from Commercial Banks/Financial Instutions. A service charge of 3 per cent would be collected from entrepreneure as one time levy.

(*i*) The Corporation will provide 20 per cent of the project cost as soft loan towards equity where the project cost is below Rs. 5·00 lakhs. The balance 10 per cent is to be arranged by the entrepreneur.

(*ii*) The Corporation will provide 15 per cent as soft loan towards equity where the cost is between Rs. 5 lakhs and Rs. 7·5 lakhs. The balance 15 per cent is to be arranged by the entrepreneur.

(*iii*) The Corporation will provide 10 per cent as soft loan towards equity where the project cost is more than Rs. 7·6 lakhs. The balance 20 per cent is to be provided by the entrepreneur.

(*iv*) The Project cost shall include the cost of prints and publicity.

(*v*) In deserving cases the Corporation may extend guarantee for availing the loan. The scheme is being operated from the 1st April 1980. The Committee headed by Sri K. C. Patel, Minister of State, Industries, in its meetings held on the 8th August 1980 and 28th January 1981 have sanctioned soft loan in favour of 9 producers of the State for production of Oriya Films.

2·2. Loan from National Film Development Corporation.

In collaboration with the National Film Development Corporation, Government of India, a scheme has been finalised to extend loan facilities to technical entrepreneurs of the State qualified from Film Institutes recognised by Government of India for production of Oriya Films in the following manner :—

(*i*) National Film Development Corporation will provide loan upto 75% of the project cost subject to maximum of Rs. 3 lakhs in case of black and white films and Rs. 4·5 lakhs in case of colour films.

(*ii*) The technical entrepreneur is required to provide 25% of the project cost.

(*iii*) The Film Development Corporation may also extend equity loan upto Rs. 25,000 in deserving cases.

(*iv*) The Film Development Corporation will extend guarantee for repayment of the loan with interest.

In persuance of the above scheme the National Film Development Corporation has sanctioned loans to three technically qualified persons of the State for production of films during the year, 1979-80. The National Film Development Corporation had earlier sanctioned loan to 3 producers for production of Oriya Films and the last loan released was in the year, 1972 for the film 'Mansarbilap'.

3. Payment of Subsidy :

To encourage production of Oriya Films, the Board of Directors have decided to pay subsidy to the producers of the State. The producers will be paid subsidy upto Rs. 1 lakh for black and white film and Rs. 1·5 lakhs for colour film for the production made from the 1st April 1978. The subsidy will be paid to the producers for the 1st film during the production of 2nd film. 50% of the subsidy will be released after completion of shooting and 50% after processing. The producer is required to utilise the shooting and studio facilities of the Film Development Corporation or its collaborator to be eligible for grant of subsidy. The scheme is being implemented from the current year vide Government order No. 10203, dated the 11th April 1980. The Board of Directors presided by Shri K. C. Patel, Minister of State, Industries in their meeting held on the 25th July 1980 and 6th October 1980 have sanctioned a sum of Rs. 1·00 lakh in favour of M/s. D. J. Productions, Bhagatpur, Cuttack and Rs. 1·50 lakhs in favour of M/s. Chhayavani Pratisthan, Oriya Bazar, Cuttack for their Oriya Films 'Gouri' (Black and White) and 'Mathura Vijoya' (Colour) respectively.

4. Establishment of studio complex

The State of Orissa does not havs a single studio complex and therefore it is proposed to have a permanent studio complex during the financial year, 1980-81 to provide the infrastrucrural facilities for production of Film. The studio will be set up as a joint venture in collaboretion with M/s. Sharada enterprises, a sister concern of M/s. Prasad Productions Private Ltd., Madras. The Project is being taken up as a joint venture with a view to take advantage of managerial and technical expertise of the collaborator to attract producers of this and outside States. The studio has been envisaged with a production capacity of 30 films per year. Accordingly an agreement has been signed by the Film Development Corporation with Sharada Enterprises for setting up a complete studio complex. Steps have been taken up to acquire land for establishment of the studio complex as selected by the entrepreneur near Khandagiri in Bhubaneswar, district Puri. The estimated project cost of the first and second phase of the complex is Rs. 55·00 lakhs with a programme for explantion for having colour laboratory complex and music recording complex and additional shooting floors.

Phase—I (a) Unit for outdoor shooting
(b) Processing laboratory for black and white films with provision for colour in future.
(c) Editing of films
(d) Dubbing with preview facilities.

Phase—II (e) Indoor shooting floors

Phase—III (g) Additional shooting floors
(h) Colour laboratory
(i) Music recording, re-recording. mixing and background scoring.

The State Financial Corporation and Industrial Promotion and Investment Corporation have agreed to sanction a loan of Rs. 23·96 lakhs for the 1st phase and the Industrial Development Bank of India has cleared the sanction of loan made by OSFC & IPICOL for the facility of refinancing.

Hon'ble Chief Mininister of Orissa, Shri J. B. Pattnaik laid Foundation Stone of the Studio Complex on the 29th November 1980, the first of its kind to be set up in Orissa. Civil construction work of the project has since been commenced and it is expected that the Dubbing and Recording Theatre will be ready for operation by the end of 1981.

5·1. State Government Subsidy

The State Government has been moved that the amount spent on land, building, plant and machinery including furniture and fixture for construction of cinema house for exhibition of films would be eligible for State investment subsidy in all the districts including the districts were central investment subsidy is payable.

5·2. It has also been moved that the complex that may be set up for studio laboratory, music recording, re-recording, etc. to facilitate production of film will be entitled to receive State subsidy. The State investment subsidy will be available for land, building and also for the machinery and equipments which will be eligible for refinancing by I. D. B. I. The subsidy will be available in all the districts of the State including the district where central subsidy is also available.

The subsidy envisaged will be 10 per cent of the project cost subject to a limit of Rs. 3 lakhs as the above activities have been declared as industrial activities by the Government of Orissa.

6. Organising Regional Film Festival

(a) The first regional film festival was organised at Grand Cinema, Cuttack in collaboration with the Film Finance Corporation and was held from the 11th May 1979 to the 17th May 1979. The festival was inaugurated on the 11th May 1979 at 5-30 p.m. by Shri Bhagabat Dayal Sharma, Governor of Orissa at Grand Cinema, Cuttack, various award winning films in Hindi, Tamil, Malayalam, Bengali, Marathi, Oriya and Hungerian were shown. It has been envisaged that such festivals of various award winning films will be organised each year. The 2nd Regional Film Festival was held from the 9th May 1980 to the 15th May 1980. Advisor to Governor, Shri K. S. Raghupati, inaugurated the festival at Grand Cinema, Cuttack. On this occasion a seminar was organised on 'Development of Regional Cinema' on the 10th May 1980. Many eminent film personalities participated in this seminar.

7. Organising Children's Film Festival

The Film Development Corporation in collaboration with Children's Film Society of India has also organised the first Children's Film Festival at Grand Cinema in Cuttack and at Ravi Talkies at Bhubaneswar from the 11th August 1979 to the 18th August 1979. The festival was inaugurated by Shri Nilamoni Routray, Chief Minister of Orissa on the 10th September 1979. The festival was organised in the State to commemorate the 'International Year of the Child'. Such festivals will be organised every year. The second Children Film Festival was held from the 14th November 1980 to the 20th November 1980 at Grand and Durga Cinemas at Cuttack and at Swati Cinema at Bhubaneswar.

The State Government has so far released Rs. 21·00 lakhs as share capital. The limiting factor has been availability of resources for the various activities of film industry from Commercial Banks/Financial Institutions. These activities are not considered as industrial activities by Government of India and an low priority items.

It is gratifying to note that the Film Development Corporation of Orissa had given many suggestions like declaring the production of films and construction of cinema houses as Industry, to make institutional finance available for the activities of the film industry, to have tripartite participation—Banks, Film Development Corporation and the entrepreneur for construction of cinema houses. Regulations of working conditions and provide insurance, Provident Fund facilities, etc. to the employees of the Film Industry to the Working Group on National Film Policy appointed by Government of India. The Working Group has in its report in May, 1980 has recommended to the Government of India for implementation of the same with a view to help in healthy growth of the Film Industry in the country. The Chairman, National Film Development Corporation, Government of India visited Orissa and has highly appreciated the various schemes of the Orissa Film Development Corporation in a meeting with the officials of the Industries Department and also in the meeting with the Representatives of the Film Industry held on the 25th February 1981.

Managing Director

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Infrastructure Development for Industrial Growth in Orissa

VINOD JHA

The Government of Orissa is committed to an integrated economic development within a fixed time-frame through efficient development of resources for optimum growth. The exercise for achieving industrial growth in a planned manner, has already been initiated vigorously. A strategy for Co-ordinated growth of major, medium and small industries is under active implementation. In order to ensure rapid industrialisation, the State is committed to take effective steps to provide infrastructure in areas having easy availability of law materials and locational apvantages. The new Industrial Policy, 1980, of the Government has granted various fiscal and financial incentives to the entrapreneurs with a view to stimulate investment. In order to ensure growth-oriented implementation of these concessions, it is necessary to provide matching infrastructural facilities to various categories of industries. With this objective in mind, the State Government have established the Orissa Industrial infrastructure Development Corporation (IDCO) with effect from January, 1980.

Any planned exercise for achieving industrial growth has to take care of development of infrastructure facilities, such as—

(*a*) Good buildable land

(*b*) Industrial and Potable water in adequate quantity.

(*c*) An easy effluent disposal system

(*d*) Uninterrupted power supply

(*e*) Easy Communication system

(*f*) Industrial Housing

(*g*) Educational and Recreational facilities.

These facilities cannot be provided in a satisfactory manner by individual industries other than big Industrial Houses and Major Public Sector Undertakings. In order to ensure rapid growth of small, medium and major industries by inducting new as well as experienced entrepreneurs, it is essential to provide these facilities in an integrated manner in selected industrial growth centres. Once these infrastructure facilities are provided on an extensive scale, the fiscal and financial incentives granted under the Industrial Policy, 1980, will Induce vast Industrial growth.

The IDCO has been established to achieve these objectives. it is a Statutory Corporation, which will provide, in a composite manner various facilities for all categories of industries. Until the creation of IDCO the infrastructural functions relating to medium industries were being looked after by Industrial Promotion and Investment Corporation of Orissa Limited (IPICOL), while such activities relating to small-scale industries were under the control of the Orissa Small Industries Corporation (OSIC). Infrastructural functions of these two (2) Corporations have now been completely withdrawn and entrused to IDCO.

The functions of IDCO are—

1. Generally to promote and assist in the rapid and orderly establishment, growth and development of industries, trade and commerce in the State.
2. Establish and manage Industrial Sheds at different places.
3. Develop industrial areas and make them available for various industries.
4. Undertake execution of different types of work relating to industries on agency basis.

5. Provide amenities and common facilities in industrial sheds and industrial areas.

6. Construct buildings for the housing of employees of various industries and make available buildings on hire or sale to industrialists.

In order to perform these duties smoothly, the Corporation has been vested with statutory powers to acquire and hold moveable and immoveable property: to hold plots, factory sheds, buildings, etc. and take such other action as may be necessary for industrial growth of Orissa,

In order to achieve these objectives, a total of forty-nine (49) growth centres, spread over all the thirteen (13) districts of Orissa, have been identified for systematic promotion of industries. Besides, fourteen (14) industrial areas have been identitied for locating medium and major industries along with small-scale industries. During the Sixth 5-Year Plan, the Government have proposed allocation of Rs. 7·00 crores for IDCO. This amount will be used as margin money to raise loans to the tune of an additional Rs, 14·00 crore. As a result, it will be possible to execute the infrastructure Programme, worth Rs. 21·00 crore durihg Sixth Plan period.

IDCO. proposes to take up construction of industrial sheds on an extensive scale during 1981-82. The strategy is to meet the full requirement of industrial sheds and developed plots in areas like, Bhubaneswar, Cuttack, Jagatpur, Rourkela, Paradeep and other places where industrial activity has already picked up considerably. Simultaneously, industrial growth will be induced in new areas by providing adequate facilities and by launching a promotional drive.

Recently, Government of India have decided to implement the concept of Nucleus Industrial growth in various, regions, which are industrially backward. A Task Force of the Government of India have selected Chandka area, in Puri district, for locating the first Nucleus Industrial Complex. More such areas in other districts are being selected for setting up such Complex. As implementation of Nucleus Industry concept is a time-bound programme. it is proposed to entrust the infrastructure development work of Chandka area to IDCO. The area development cost may be in the region of Rs. 10·00 crore and this amount is proposed to be arranged over and above the Sixth Plan allocation, already made.

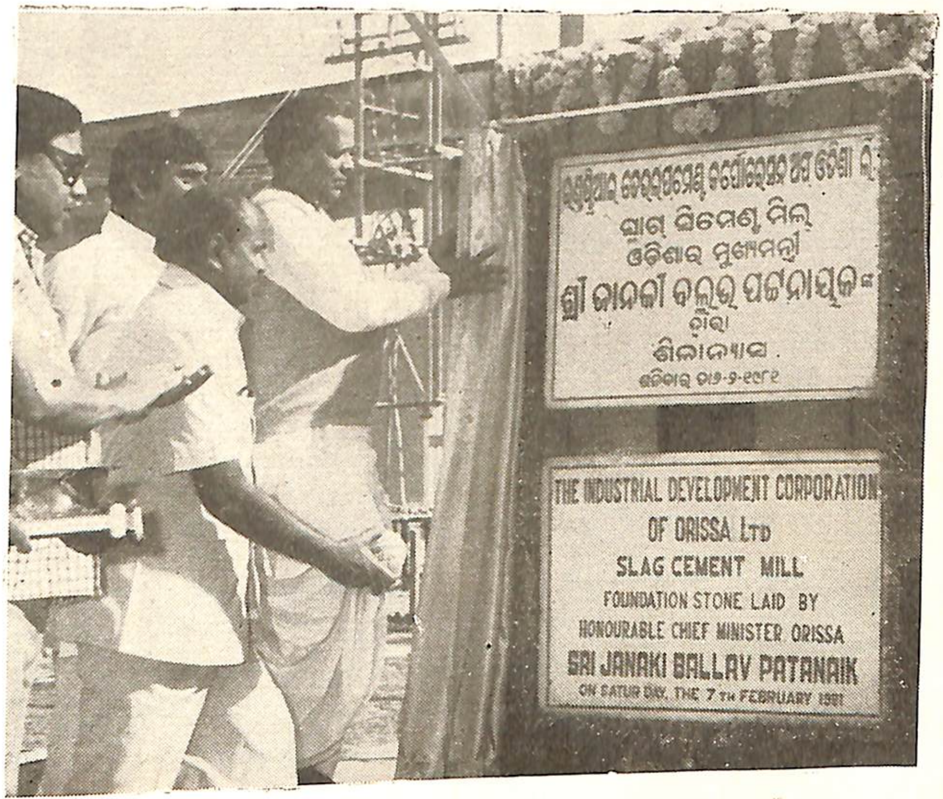
Infrastructure development is an integrated concept. In order to facilitate massive Investment in the industrial sector, the highways, ports and railway links in the State have to be further improved. The Government have launched a sustained drive to have new railway links between Talcher and Sambalpur, Jakhpura and Banasapani, and Rayagada and Koraput. Construction of these new railway links will bring about a comprehensive change in the Communication network of Orissa. These new railway facilities will ensure rapid utilisation of our vast mineral resources. The existing port facilities at Paradeep are also undergoing rapid expansion in order to absorb the much higher traffic to be generated by the proposed Steel Plant and the Fertiliser Plant. The bottle-neck at Bhubaneswar airport is going to be shortly eliminated by expansion of airport facilities. The direct Boeing Service to Delhi, which has brought about remarkable improvement in tourist traffic to Bhubaneswar is a major achievement in this regard. A substantial expansion of airline facilities is scheduled to take place in 1981-82. These broader infrastructural facilities would act as important catalyctic agents for Industrial growth.

With vast resources of coal, Orissa has tremendous potential for generating thermal power. While expansion of existing power generating systems is under way, a super thermal power at Talcher will substantially and to power availability. The State requires continuous growth in power generation capacity, in order to permit large power-intensive resource-based industries, based on extensive reserves of Iron Ore, Chromite, Bauxite and various other precious minerals. The unique water resources of the State are being rapidly harnessed for power generation as well as for irrigation.

While new railway lines, additional air and port facilities and extra power generating capacity will improve the arterial infrastructure network of Orissa, it is essential to take full advantage of the potential and existing facilities. In order to exploit the existing facilities fully, IDCO will undertake development of industrial areas so that developed land, with all necessary facilities are available in advance, to the industrial entrepreneur. Large compact areas of land are under acquisition by this Corporation in Bhubaneswar, Paradeep, Rourkela, Dhenkanai and Koraput districts. IDCO proposes to provide composite infrastructure services under one roof. Apart from the functions listed above, IDCO will also provide detailed consultancy on design and civii engineering to various industries. Services like, site investigation and soil exploration, will also be made available. whenever necessary, IDCO will supervise civil construction for medium and large industries.

It will be evident that a well planned and systematic infrastructure development is essential in order to ensure rapid industrialisation of the State. The IDCO has been established precisely for this purpose. working jointly with the Promotional Agencies like, IPICOL, OSIC and the District Industries Centres, it is proposed to spread out infrastructural faciiities all over the State in a systematic manner to induce massive industrial investment.

Managing Director, IDCO

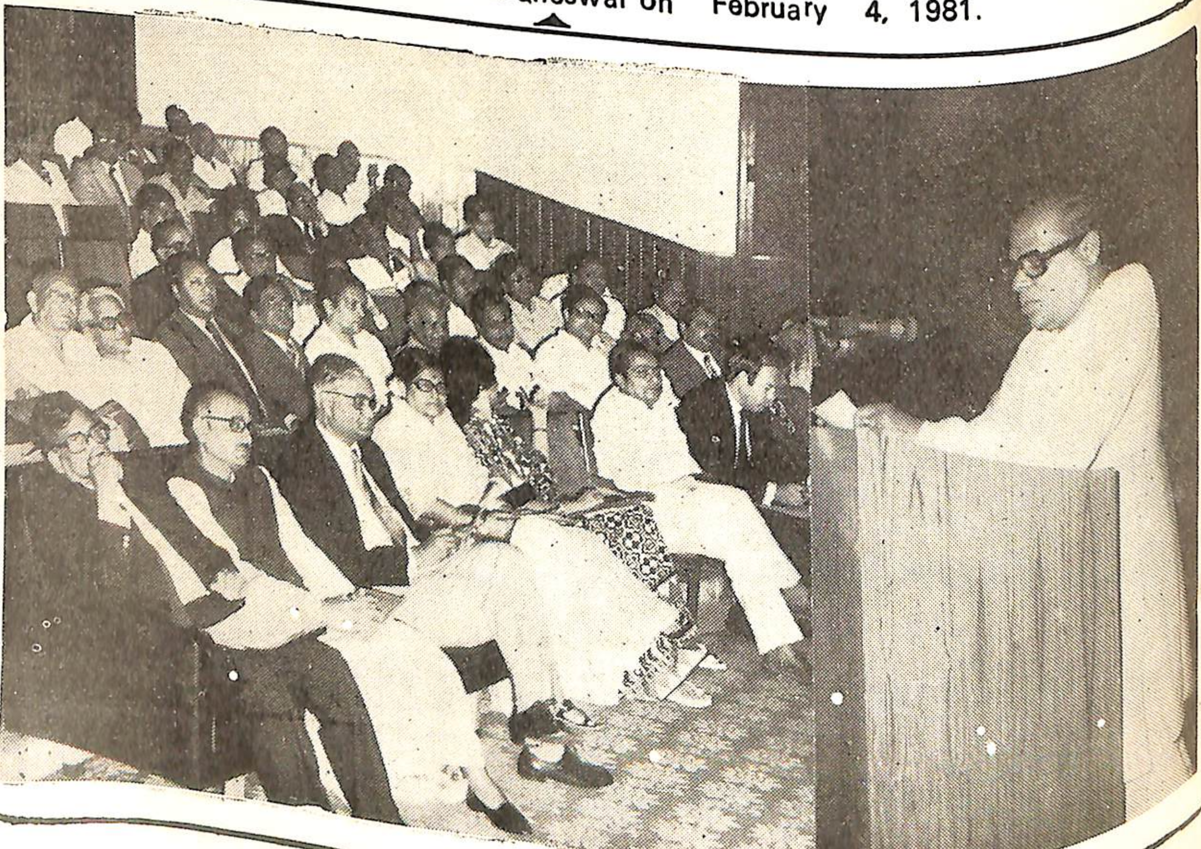

THE INDUSTRIAL DEVELOPMENT CORPORATION
OF ORISSA LTD
SLAG CEMENT MILL
FOUNDATION STONE LAID BY
HONOURABLE CHIEF MINISTER ORISSA
SRI JANAKI BALLAV PATANAIK
ON SATURDAY, THE 7TH FEBRUARY 1981

The Chief Minister Shri J. B. Patnaik laying the foundation-stone of Slag Cement Mill of I. D. C. of Orissa Ltd., on February 7, 1981.

The Chief Minister of Orissa Shri J. B. Patnaik laying the foundation-stone of Sewa Papers Ltd., at Gaganapur in Koraput district on February 20, 1981.

Foundation-stone of Sonepur Spinning Mill of I. D. C. of Orissa Ltd., being laid by the Chief Minister Shri J. B. Patnaik on February 7, 1981.

The Chief Minister Shri J. B. Patnaik delivering his inaugural address in the Seminar on the Rapid Industrialization of the State organised by the Utkal Chamber of Commerce and Industry at Bhubaneswar on February 4, 1981.



PROSPECTS OF PHARMACEUTICAL INDUSTRY

SHRI ASHOK KUMAR DAS

"Modern drugs have conferred the greatest benefit of mankind, it is chiefly due to them that the average expectation of life of men and women in this country has increased by atleast 10 years since the 1930. This revolution in treatment has been very largely due to the pharmaceutical industry. Some years ago Sir Ernest Chein said that of the 66 most valuable drugs introduced since aspirin in 1899 only nine had been discovered in Universities and Research Institute (those of course included pencillin, streptomycin and dimercaprol) but all other 57 had been discovered and promoted by the work of Scientist in the Laboratories of an industry devoted to profit move".

CHAIRMAN BRITISH MEDICINE
COMMISSION

2. Need

The Planning Commission envisages a doubling of capital investments in the drug industry, production and basic manufacture in the country during the 6th Plan Period a substantial increases in exports and greater investments in Research and development.

In order to achieve the above the only way out is the proper development of pharmaceutical industry, so as to keep pace with the rise in demand for drugs and indigenous production of chemical intermediates to ensure steady supply to the industry at competitive prices.

3. Present Position

In the State of Orissa the annual consumption of drugs is to the tune of 3·5 crore. Out of this 1·5 crores are manufactured indigenously and the rest is procured from the manufacturers outside the State. The State has roughly 1,198 Nos. of medical institutions where drugs are to be used for the treatment of patients. With the improve in the health planning it is envisaged that the number of institutions where patients will be treated during the end of 6th Plan Period is likely to be one and half time more than what is existing now. This will show that the production of drugs also has to be increased to meet such situation.

That State has now about 100 pharmaceutical units. They manufacture injectables, tablet, capsules, ointments liquid orals, transfusion fluids, disinfectant fluids and basic drugs. The present industry are not in a position to cope up with their production to fulfil the requirement, the State needs and therefore there is great scope for increasing the number of industry or in other hand the existing units have to boost up their production capacity.

4. Scope for Development

The industries which are now existing have not been able to produce all categories of drugs and pharmaceuticals that is required in the State hospitals as well as in the market. The State also has number of by products that are available from the Rourkela Steel Plant. There are also plenty of natural products which could be utilised to produce drugs having good foreign exchange. We have good marine resources and by exploiting the fishes one could go for production of liver oils which are rich sources of Vitamin-A and Vitamin-D. Few of the items of industry those have been identified are indicated below.

Nature of industries that have scope in the State		Type of industry that can be encouraged
Drugs		
(*i*) Common tablets-Coated/Strips		S. S. I.
(*ii*) Capsules-hard/soft		
(*iii*) Ointments-topical, opthalmic		
(*iv*) Injectables-Antibiotics, vial, Transfusion fluids		Heavy
(*v*) Surgical cotton/Bandage I. P. Goods		M. S./S.S.
Biological and special products		
Vaccine and Serum Liver extracts and other products both for human and veterinary use.		Heavy
Basic Drugs		
Citrates, Passalt, I. N. H., Dihydromethime, Antidiabetics like Chlorpropaide, tolbutamide, antimalarials, antirhematics, Vitamins antihistamines, Piperazine salts.		Heavy/S. S.
Natural products from medicinal plants		
Anti hypertension drugs Steriods Alkaloids Glycosides Gums, starches	Example Reserpine Strychine Brucine Salacidin, Diosgenin	Heavy/S. S.
Drugs from Marine sources		
Fish protein, Fish liver oil	.. Agar Agar	S. S./M. S.
Fine Chemicals		
Chloroform, Ether, Permagnanates, Esters, Dichromates, Pharmaceutical grades, chemicals	..	Heavy/S. S.

4. Scope for Development

The industries which are now existing have not been able to produce all categories of drugs and pharmaceuticals that is required in the State hospitals as well as in the market. The State also has number of by products that are available from the Rourkela Steel Plant. There are also plenty of natural products which could be utilised to produce drugs having good foreign exchange. We have good marine resources and by exploiting the fishes one could go for production of liver oils which are rich sources of Vitamin-A and Vitamin-D. Few of the items of industry those have been identified are indicated below.

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(*iv*) Injectables-Antibiotics, vial, Transfusion fluids		Heavy
(*v*) Surgical cotton/Bandage I. P. Goods		M. S./S.S.
Biological and special products		
Vaccine and Serum Liver extracts and other products both for human and veterinary use.		Heavy
Basic Drugs		
Citrates, Passalt, I. N. H., Dihydromethime, Antidiabetics like Chlorpropaide, tolbutamide, antimalarials, antirhematics, Vitamins antihistamines, Piperazine salts.		Heavy/S. S.
Natural products from medicinal plants		
Anti hypertension drugs Steriods Alkaloids Glycosides Gums, starches	Example Reserpine Strychine Brucine Salacidin, Diosgenin	Heavy/S. S.
Drugs from Marine sources		
Fish protein, Fish liver oil	.. Agar Agar	S. S./M. S.
Fine Chemicals		
Chloroform, Ether, Permagnanates, Esters, Dichromates, Pharmaceutical grades, chemicals		.. Heavy/S. S.

Ancillary industry

(*i*) Glass Containers, Bottles, Vials, ampoules.

(*ii*) Synthesis containers (Plastic)

(*iii*) Printing Press for labels/ documents.

The State is still not self-sufficient in production of basic drugs. If the chemical by-products of the Rourkela Steel Plant like Benzene, Toluens, Xylene, Nephthalene, Phenol, O. cresol, etc., could be used there is good scope to manufacture good number of pharmaceutical like Pathalic acid, aspirin, paracetamol, phenacetin, sacchrain, which has good market value.

The various natural wealth of the State forms a well available resource for industries for medicinal plants. More than 70 per cent of the vegetable drugs mentioned in the pharmacopeca is found in the State and systematic cultivation has not been taken up. Few important medicinal plants like Rauwalfia, serpentina, Benth (Sarpagandha) used for hypertension, Nuxvomica seeds which yields strychnine and Brucine as alkaloids. Vinca Rosea which yields alkaloids for anti-leukomic properties, Datura which yields Hyosceine used for sea-sickness, opium which yields morphine could be taken up for cultivation. Extraction plants could be set up for plants to purify the active ingradients and prepare them for commercial market. These also have use in the Ayurvedic and homoeopathic system. There are number of plants which yields essential oils on extraction which are used in the cosmetics and perfume industry. These have good commercial value. Citral present in lemon grass oil is the starting material for—Vitamin A synthesis. Steroid Harmone from solanum species is having good export market, Solasidine is being sent to USSR and other countries. These plants could be conveniently cultivated and industries set-up which would bring abundant foreign exchange. Besides systematic cultivation programme for medicinal plant could be undertaken to meet the requirement of medicine prepared ISM and Homoeopathy. Other important natural products are the gums and starches. They are used as binding agents in the production of tablets. It may be mentioned here that in our country we are still importing starch as a raw material for our pharmaceutical industry. There is therefore good scope for setting up an pharmaceutical industries for production of starch and Gums which has immense utility as raw materials in formulation industries.

Orissa has a coast line of about 250 miles and also a number of big rivers. It has also one of the biggest lake Chilika situated in the State. The pharmaceutical industriy that can be exploited from marine sources are:—

(*i*) Fish liver oil (Source of Vit. A & Vit. D)

(*ii*) Fish protein concentrate

(*iii*) Fish protein tablets,
(Which could be distributed for mal-nutrition in nutrition programme).

(*iv*) Sea weed (Agar, Agar)
Gracilaria Species of Sea Algae.

Agar, Agar is a sea weed used in pharmaceutical as emulsiting agent. We are still importing this drug and losing foreign exchange. An attempt to cultivate and setting up a processing plant for agar, agar, will be of much economic significance.

Hope for the future

In planning out a successful pharmaceutical industry the following important factors came out for consideration—

(*i*) Infrastructure
(*ii*) Financial assistance
(*iii*) Position of raw materials/availability.
(*iv*) Industrial service organisation/project identification.
(*v*) Adequacy of personnel for maning the industry.
(*vi*) Growth of ancillary industry
(*vii*) Marketing
(*viii*) Revival of sick units prospects.

The present policy of the State Government have been a heartening step for prospective entrepreneurs as most of these points are being looked into by the State Government through their various agencies. So far as the infrastructure is concerned the State Government have set up an Infrastructure Development Corporation for development of industries and growth centres.

With regard to financial assistance the Orissa State Financial Corporation have taken lead in this regard. There are number of nationalised banks who are encouraging the young entrepreneurs to set up pharmaceutical industries.

With regard to raw material the Government of India have been pleased to set up Regional Import Office at Cuttack. This office would look into the problem of raw material of different units/actual uses expeditiously. The present policy of Government of India for imports is very encouraging and the import policy is quite liberal. There is not much of bottle necks for an actual user which used to be there previously.

Project identification was a problem earlier. Now the State Government and other leading banks, S. I. S. I. Organisation as well as the State Drugs Control Organisation are taking keen interest in helping the new entrepreneurs to identify their projects. This is a progress for the new entrepreneurs as they are certainly in a better position to go ahead with their schemes. With regard to the adequacy of technical personnel to man the industry there is now a private pharmacy institution at Berhampur, which is aiming to produce good number of technical hands to man the industries in future.

Some of the new entrepreneurs have come up with the proposal to start ancillary industries for preparing ampoules, bottles and printing press to prepare labels. This industry has a very bright future as in course of time more and more industry will be set up keeping a pace with new policy of Government and therefore they will be requiring containers, packaging materials and good labels for their produce. The proposed industry in ancillary line will certainly have a great future.

Several small scale units face difficulties in marketing their product. The State Government have given clear indication that all registered small scale industries will be eligible to get 15% price preference for their product supply to Government and semi-Government institutions. Small scale units having I. S. I. mark are eligible to get 3% extra price preference. The Export Promotion and Marketing Organisation have now identified some common drugs and have asked the small scale units to go into rate contract. This will solve the bottleneck which the Small Scale units faced in selling their product through the mode of quotations. It is also contemplated that Government will encourage more for the use of local produce in future to come, if the industry maintains strict quality control.

From the aforesaid discussion of the article and keeping in view the increase in the requirement of pharmaceutical for the use of patients in the hospitals of the State, the production of indegenous manufacturers is to be geared up and therefore there is good prospects for pharmaceutical industry to grow in the State, in years to come.

Deputy Drugs Controller, Orissa

Developing Technical Man-Power

SHRI K. DAS

Man-power Planning is an essential component of overall economic development programmes. Successful implementation of inter-sectoral developmental activities and projects will very much hinge upon comensurate planning for man-power. The objective of the Planners is not only to eradicate unemployment problems encountered by the technically qualified persons but also to plan for requisite man-power necessary for various projects and activities within a prescribed time period, development of technical man-power is, therefore, an important segment of overall socio-economic plans.

Development of technical man-power involves two stages. At the outset, general education facilities in technical trades has to be provided to create a base for creation of technical hands. The other aspect is providing practical and apprenticeship training to technical persons to equip themselves with the exact job specifications.

Economic development of a particular area will comprise planning, programming and implementation of various projects like roads, buildings, irrigation projects, power projects, mining, heavy medium and small and cottage industries, ports, shipping, agricultural engineering etc. The requirement of technical man-power in these projects has to be timely met in order to facilitate timely-implementation of various projects.

Technical man-power planning will, therefore, involve planning of technical education—general and practical. Secondly, the planning will consist of various action programmes such as (*i*) assessment of technical man-power, both annual and perspective, in various sectors of the economy, (*ii*) the type and composition of technical man-power requirement, (*iii*) the exact qualification and experience warranted in each job, (*iv*) arrangement of practical training, i. e. inplant training if such training facilities are not available in the existing technical education institutions, (v) tagging up the requirement of technical man-power in a project for the creation of technical man-power in collaboration with Directorate of Employment, (vi) effective policies and programmes regarding recruitment of technical personnel, (vii) periodic evaluation and monitoring on man-power planning and absorption of technical hands in different projects, (viii) and continuous flow of statistics relating to the need for technical man-power both in quality and quantity by the Director of Technical Education in collaboration with various projects and many other actions.

Technical man-power planning will not have any effective result unless there is a proper and wel-knit co-ordination between the projects, the Directorate of Employment and the Directorate of Technical Education. The major constraints on the part of the Directorate of Technical Education in respect of technical man-power planning has been the lack of required date, both primary and secondary, relating to requirement of various kinds of technical man-power in different sectors of the economy for a particular period. There has not been any concerted and well planned thought over this issue in the State so far. Projects have been formulated and implemented. Technical man-power supplied by the various technical educational institutions do not find themselves either suitable to the job or do not get opportunity for absorption. Consequently the employment requirement of technical man-power has been met from persons belonging to other States. Requirement of technical man-power not only has to be assessed in the main projects but for the ancillary and auxiliary projects coming in and around it both in construction and post implementation stages. But the whole sector belonging to technical man-power in the projects has not been well-linked with the supply of technical man-power in the State. There has not been any perspective planning with regard to assessment of technical man-power requirement and comensurate planning for creating matching technical man-power in time. Very often the educated unemployeds particularly technically qualified persons have felt high and cry, when they do not find employment opportunities both in institutional and private sector.

Unemployment problem of technically qualified hands can considerably be solved if proper planning is done with regard to requirement and supply of man-power. The institutional sectors, consisting of Government Departments, public sector undertakings and autonomous bodies and other projects in Central Sector are great source for absorption of unemployed technical hands. Planning of various projects and developmental activities should take care of the requirement of technical hands right in the initial stage. Private sector has a different setting. It mainly consists of private managed industries—large, medium and small-scale industries. Their specific requirement of technical hands can be assessed, but it will not be imperative on the part of the Government to impose upon the projects to absorb technical hands prepared by the Technical Educational Institutions. But in regard to Government Sector, as indicated above, engineering personnels like Civil, Electrical, Metallurgical, Electronics, Mechanical, Textile, Ceramics, Marine, Instrumentation, etc. both graduate and diploma holders can find suitable job.

SUGGESTIONS FOR SCIENTIFIC TECHNICAL MAN-POWER PLANNING.

1. Simultaneous assessment of technical man-power requirement along with the identification of various developmental programmes.

2. Enumeration of the type of experience, training and knowledge each technical hand and this should be done project and sectorwise.

3. Assessment of man-power planning should not be done on piecemeal basis or for a smaller period. It should be always a perspective one.

4. Association of Director of Technical Education and Director of Employment both during the time of identification and programming and implementation of various projects and developmental activities.

5. Advanced planning with regard to provision of practical technical training to the technical hands to make them eligible to different jobs in different projects.

6. Identification of a few common areas of specific types of training and technical knowledge and creation of facilities in the Directorate of Technical Education to provide such basic practical training facilities. To cite an example, it has been experienced in the State that most of the chemical and allied industries do require technical hands having practical experience in industrial and applied chemistry for which Orissa does not provide any technical hand. Even though there has been provision for chemical engineering. The passed-out graduates and diploma holders in chemical engineering are not found suitable for various industries including pharmaceutical sector. The industries sector has been largely dependant on Calcutta and Bombay market for recruitment of requisite technical personnel. In other words, the basic technical education offered in the technical institutions to the various categories of technical trades like Chemical, Electronics, Metallurgical, etc., do not get enough practical industrial experience for which they are not found to be suitable by the private sector projects. Consequently, these unemployed technical hands hinge upon Government sector for their employment. Projects, industries and specific developmental activities require specific type of technical man-power with adequate practical experience. Hence the State have to assess this aspect scientifically and seriously so that the requisite training facilities can be created and if necessary, the course and curriculum in the technical institutions may undergo necessary changes. Each Department and concerned projects while programming and implementing the project should undertake an exercise for knowing the type of technical hands they require at present and they should also indicate the Projected requirement of man-power to the Director of Technical Education.

There should be a full fledged data-*cum*-monitoring cell in the Directorate of Technical Education and Training. The job of the cell will be to collect data on the requirement of technical personnel, project-wise, sector-wise, year-wise and process them and prepare documents indicating the annual and perspective requirement of technical man-power. The cell will establish liaison and linkage with various recruiting departments and projects and there should be to-and-fro inflow of information.

An apex committee consisting of Secretary, Planning and Co-ordination, Secrotary, Industrtes, Chief Engineer, O. S. E. B. and Director, Technical, Education and Director of Employment should be constituted to go into the details of *modus operandi* of technical man-power planning in Orissa. The Director of Technical Education and Training may function as Member-Convenor of the said Committee.

It is high time that a proper thought is given to the technical man-power planning. The Director, Technical Education has been engaged only in imparting technical education without having any say on the absorption of technical personnels in different sectors. The Directorate has been divorced from the main stream of developmental planning in the State. The gigantic industrial development programmes now prepared by the State Government and the implementation of various socio-economic development projects during the 6th Five-Year Plan have opened tremendous areas of oportunities for technical man-power. Development of technical man-power and simultaneous employment programme for the technical personnel should be worked out on scientific basis. The Director of Technical Education and Training will be able to work out all these details in collaboration with the important departments and organisations of the State.

A small beginning has already been made in the Directorate of Tcchnical Education and Training to assess the requirement of technical man-power during the 6th Five-Year Plan. A man-power cell has been constituted in the Directorate of Technical Education and Training with one Placement Officer, one Research Officer and one Statistical Officer. Supporting staff (surveyors) are needed to take up the real survey work. Data on the requirement of technical man-power in respect of graduate engineers, diploma holders, I. T. I. craftsmen were collected through correspondence as well as personal contracts with the important Government Departments. State/ Central undertakings and big private establishments. These requirements were analysed in the light of production from technical institutions in the State under the control of the Director of Technical Education and Training, out-turn of apprentices in the All-India Trade Tests and Technical personnel unemployed as found from the Live Registers of the Employment Exchanges. Government constituted a Task Force to examine these details and discover the area where shortage of man-power is prominent. To overcome this shortage different expansion programmes under technical education and craftsman training sector are being taken up in the 6th Plan.

Development of technical manpower and for the State as a whole has to be done in a more planned and scientific manner for which response from the employers is needed, specially the authorities in charge of implementation of big industrial projects to come up in near future should be able to project their own requirements in a realistic manner so that expantion programmes under the Technical Educasion and Craftsman Training can be taken up accurately.

Director of Technical
Education and Training

Development of Bauxite Resources and Aluminium Industry in Orissa

SHRI BASANTA KUMAR BISWAL
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Housing & Urban Development and
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Aluminium is not only the most abundant metallic element in the earth's crust, it is also one of the most extensively used metal in virtually all segments of our economy. Because of its versatility and use in transmission of electric energy; building of ships, automobiles, railway coaches and aircrafts; building industries; aluminium will continue as a major growth metal for years to come. The *per capita* consumption of aluminium in U. S. A. is about 22 Kgs. The world average is 2·8 Kg. In India, the *per capita* consumption is only 380 gms., i. e. roughly 1/8th of the world's average. There is therefore tremendous scope for expansion of aluminium industry in India.

Throughout the would, bauxite ore is the principal source of aluminium. Bauxite, which is mainly composed of aluminium oxide minerals, is chemically treated by the well-known Bayer's process for production of alumina or aluminium oxide. In commercial form, alumina is a fine white powder. Aluminium metal is produced by electrolysis of alumina, based on the process developed by Charles Martin Hall and Paul Hercult. Apart from bauxite, the other important raw material required for production of alumina is caustic soda. For production of aluminium from alumina, electric power is the main raw material. Aluminium production can not be planned without plentiful of power. For production of one Kg. aluminium metal, about 16 units of electric power are needed. If we plan an Aluminium Plant of 100,000 tonne annual capacity, we have to plan supply of 200 M. W. of power.

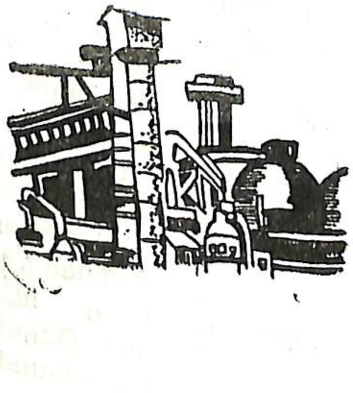
Fortunately, Orissa is happily placed with respect to both bauxite and electric power. Required quantity of caustic soda can be produced without difficulty. In 1975 the total reserves of bauxite known in the country were of the order of only 350 million tonnes. With recent advances in aluminium production technology, it has become possible to utilise bauxite containing as low as 40 per cent alumina. With this revised parameter, a massive exploration programme was launched in the year 1975 to reassess the resources of bauxite in a number of plateaus in the districts of Koraput, Kalahandi, Balangir and Sambalpur. In this programme of exploration, the State Directorate of Mines, Geological Survey of India and Mineral Exploration Corporation took part. The magnitude of the exploration programme and the speed at which it was executed and completed had no parallel in the history of mineral exploration in the country. As a result of the combined efforts of these organisations, the resources of bauxite in Orissa alone were estimated at over 1,000 million tonnes. The deposits at Panchpatmali in Koraput district and Gandhamardan on the border of Balangir and Sambalpur districts, which were discovered by the State Directorate of Mines earlier, together account for 532 million tonnes, Panchpatmali with a resource of 315 million tonnes standing out as the largest single deposit of bauxite in the country. The high plateaus of Koraput, Kalahandi, Balangir, Sambalpur and Phulbani districts which were inaccessible and separated from the plains by dense forests and steep escarpments were scanned for bauxite one after another by the Geologists, Mining Engineers and Drillers and the results have been heartening. Besides Panchpatmali and Gandhamardan, large deposits have been found at Sasbohu-Pasangmali, Baphlimali, Lanjigarh hills among others, each of which can support a large size alumina-aluminium complex.

The vast resources of bauxite proved in Orissa attracted the attention of several international aluminium producing countries. Government of India also set on exploring how best the bauxite resources could be exploited to meet the indigenous demand of aluminium and also to earn foreign exchange through export of alumina. Government of India ultimately decided to set up an alumina-aluminium complex based on the bauxite resources of Panchpatmali with technical collaboration of Aluminium Pechieny of France. The project will camprise development of Panchpatmali bauxite deposit to produce up to 2·5 million tonnes of bauxite annually, an 800,000 tonnes Alumina Plant near Damanjodi in Koraput district, an Aluminium Smelter of 218,000 tonnes annual capacity near Talcher, a Thermal Power Station to generate 700 MW power to be located near Talcher and a railway line connecting Koraput with Rayagada. The total investment would be of the order of Rs. 1,400 crores.

For execution of this massive project, a separate Company named National Aluminium Co. has already been formed and registered in Orissa. It is a happy augury that Smt. Indira Gandhi, Prime Minister of India during whose tenure as Prime Minister in 1975 the massive programme of exploration of bauxite resources in the East Coast was started, would lay the foundation for the complex at Damanjodi in Koraput on the 29th March 1981, after successful completion of an agreement between India and France for providing the necessary technical know-how and foreign credit required for the project.

Implementation of the project will ultimately raise the mineral production of the State from 14 million tonnes to over 18 million tonnes as a result of increase in production of coal and exploitation of the bauxite deposits. The State will earn a sum of about Rs. 3·50 crores annually as mining royalty and cess alone. The project will usher a technological era in Orissa as production of both alumina and aluminium will promote a chain of other ancillary industries which can provide employment to a number of persons in the State.

Our country is importing aluminium from abroad at considerable cost of foreign exchange. With growth in *per capita* consumption of aluminium metal and increase in consumption of aluminium necessitated by increase in generation and transmission of electrical energy among others, the short-fall between demand and availability will be of the order of at least 3,00,000 tonnes by the end of this decade. It is, thererore, necessary from now to plan establishment of additional alumina and aluminium production capacities keeping the resources of bauxite available in Gandhamardan, Baphlimali and Lanjigarh deposits in view.



Rural Industrialisation : A case study of Koraput District

SHRI P. C. MOHAPATRA
AND
SHRI S. C. PATNAIK

The need for multi-level and block-level planning is increasingly felt of late as rural industrialisation seems to hold the key for balanced development providing adequate number of jobs to the ruralites who are plagued with unemployment and under-employment and a large number of people have nothing to sustain their life. A study of block-wise potentialities of rural industries may serve as a guide for a development plan,

Koraput is the largest district in Orissa and one of the biggest in the country covering an area of 27,020 Sq. kilometres. It has the highest number of tribal population among all the districts of the State, representing more than one-fifth of the total tribal population (i.e. 11·51 lakhs out of 50·71 lakhs in the State). The percentage of Scheduled Tribes population in the district is 56·34. The presence of such a large number of tribal propulation, both in terms of numbers as well as in terms of percentage, greatly influences the economy of the district.

Nearly 80·40 per cent of the villages in the district are small having less than 500 population in each. Taking into consideration the fact that a census village may contain two or more habitations separated by considerable distances, as large number of villages out of these small ones are also not compact but scattered ones consisting of a number of habitations. Such dotting of small villages in the district makes communication and integration difficult and increases the problem of locational planning and cost of development in each sector.[1]

The district is sparsely populated with an average density of only 76 persons per square kilometre. The density of population of Motu taluk is as low as 25 per cent per square kilometre and 50 per cent of the taluks in the district have less than the average density of the district. Hence, unless a compact picture of the odds to be faced in planning for their development is had, the effort may turn out to be futile. it is, threfore, necessary to discuss in brief the salient feature of tribal life and economy.

Economic Backwardness

The eleven selected indicators represenated in table I bring out the extent of social and economic backwardness of the district as compared to that of the State. The first five indicators reveal that there is a higher participation rate (both in case of males and females) and there is a tremendous pressure on agriculture. The low dependancy ratio in the district indicates that it becomes necessary for many of the persons including adolescents and old ones to work just to fulfil their minimum needs of food. These indicators also reveal that diversification of the econmic activities in the non-agricultural sphere is yet to take place. The last six indicators show that the population is highly rural, the communication system is grossly inadequate, the social facilities provided are at a low level and the per capita income is substantially less.

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[1] S. C. Patnaik : Anatomy of Poverty in Orissa and Anti-poverty Measures,' *Southern Economic Review*, January 1975, Vol-4(3) pp. 197-222.

Economic Base

Since a major percentage of workers derive their livelihood from agriculture, as shown in table 1, it is the mainstay of the population. But the presence of hills and undulating terrains, the practice of shifting cultivation in steep slopes and heavy rainfall leading to soil erosion act as the main obstacles to improved methods of cultivation. The net sown area in the district constitutes only 31.13 per cent of the total geographical area and the percentage of irrigated area to net sown area is only 4.4[2]. Thus the economy of the entire district is mostly one crop economy, which provides employment opportunities only for about six months

TABLE 1

Backwardness of Koraput as shown by selected socio-economic indicators

Socio-economic indicators	Koraput	Orissa
1. Worker : Non-worker participation for total population.	35·09 : 64·91	31·22 : 68·78
2. Worker : Non-worker participation for males	60·21 : 39·79	55·32 : 44·68
3. Worker : Non-worker participation for females	9·46 : 90·54	6·81 : 93·19
4. Percentage of workers engaged in agriculture total population.	82·42	77·44
5. Percentage of workers engaged in manufacturing, processing and servicing—		
(a) Household industries	2·16	3·63
(c) Other than household	1·37	2·30
6. Percentage of urban population	8·19	8·41
7. Percentage of literacy	10·58	26·18
8. Density of road per 100 s. km.	82·39 km.	34·29 km. (75-76)
9. No. of village electrified	4·3%	13·7% (72-73)
10. No. of medical beds per lakhs of population	24	26 (75-76)
11. Per capita income	Rs. 371	Rs. 584

Sources—(1) B. Tripathy : A Portrait of population, Orissa-*Census of India*-1971-Series 16-1973.

(2) *District Statistical Hand-Book* 1974 *and* 1975; Koraput District Statistical Office, Government of Orissa; 1978.

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[2] Orissa Agricultural Statistics, 1977-78, Directorate of Agriculture and Food Production, Government of India.

in a year to the workers engaged in this sector. The average crop yields per acre are poor and an estimate shows that the income derived from this main source of living is only 27.1 per cent of the total income in the district (table 2).

TABLE 2

Percentage of household income by different sources

Source		Rural	Urban	Total
Agriculture	..	31·4	8·0	27·1
Dairy	..	1·4	1·9	1·4
Fishery	..	0·3	0·2	0·03
Poultry	..	0·7	0·1	0·6
Piggery	..	(N)	(N)	(N)
Forestry	..	15·8	1·9	13·3
Household industry	..	1·4	0·8	1·3
Other industry	..	(N)	1·1	0·2
Trade and commerce	..	5·0	12·9	6·5
Profession	..	1·6	6·4	2·5
Service/labour	..	40·8	63·0	44·8
Other sources	..	1·6	3·7	2·0
All sources	..	100	100	100

Source—State Bank of India—Land Bank Scheme, District Profile for Koraput, Orissa-Vol. I of Study of Policy Oriented Lending and Deposit Potential, p. 5 (This estimate is based on a household survey).

Under the circumstances, the economic strength of the district mainly lies in its rich forest and mineral resources. Forests constitute an important source of livelihood of its people, next only to agriculture and provide about 13.3 per cent of the total income (table 2). There are large number of wood species in the forests which cover an area of 15,210 sq. km. or about 56.29 per cent of the total geographical area of the district. The exploitation of major forest produce and minor forest products besides yielding a substantial revenue to the goverment act as an important source of livelihood of its people.

The district is endowed with a wide abundance of mineral deposits. Iron ore, manganese ore, china clay, dolomite, lime stone, quartzite etc., are some of the important minerals. The number of mines in the district was 17 in 1976[3].

Rural Industrialisation

Rural industrialisation connotes dispersal of industries into rural areas with a view to providing subsidiary employment opportunities to the people of the locality and to utilising local raw materials into processed articles. It also includes within its scope the extension of market of the local products and changing the exploitative relationship of rural folk with other existing at present. It aims at providing the basic requirements and services needed for agriculture, animal husbandry and forestry. It has been rightly said that "rural industrialisation is not a problem of more location of industries or of providing supplementary industries to the broad masses...... It implies a widely decentralised growth of industries with as high an employment potential as it is compatible with an efficient technique and the requirements of the process of development. In other words it seeks to transfuse modern industry into the life of the people of a particular locality by emphasing area development and maximising local skill and resources."[4]

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[3] *Mineral Year Book of Orissa* 1976, Directorate of Mines, Mining and Geology Department Government of Orissa.

Progress and Working

Prior to the third plan, rural industrialisation was more or less expressed in terms of village and small scale industries. The programme of rural industrialisation was conceived in Orissa in the year 1961-62, when it was decided to make each Panchayat Samiti and Grama Panchaya thead-quarters, a nucleus for the development of rural industries. The Panchayat Industries Programme (P I P), actually started during the year 1962-63 and out of 43 Panchayat industries sanctioned in the State three were selected purely on the basis of economic factors like availability of raw materials, manpower, etc.

But in order to evoke better public participation in rural areas, the Government decided that these industries should be located in Grama Panchayat areas and a new scheme of prize competion was started. Under the scheme, first and second prizes Rs. 50,000 and Rs. 25,000 respectively were awarded to 34 successful Grama Panchayat (17 first and 17 second) every year, according to the overall performance of the competing Grama Panchayats in the State.[5] Prizes were awarded for three subsequent years, but due to emergency, the prize scheme was suspended during year 1965-66.

The industries established under the programme were mainly of two categories: (i) processing industries of agricultural produce and (ii) industries which seek to provide for better skills and improved equipment to the local artisans and workers.

By the year 1965-66, 147 industrial units had been sanctioned out of which 105 units had gone into production in the State. But during the year 1976-77 only 75 unit were running in the State out of which 12 units belonged to Koraput district. During the year 1977-78, out of these 12 units only 6 were working units, 2 were defunct, I was under liquidation and the rest 3 were incomplete units. Thus it is evident that the performance of rural industrialisation scheme in the district was a complete failure as it could not achieve the goals for which it was launched.

Present Position

In order to examine the importance of rural industries in terms of creation of additional income and employment opportunities in the district, it is necessary to highlight the growth rate and present position of the small industries. As per 1971 Census, 2·16 per cent of the workers in the district are engaged in the household industries and the income accrued from this activity is more than Rs. 97 lakhs. There are 5,876 units (including repair units) providing employment to nearly 11,000 persons. Among the traditional household industries cotton textiles (weaving and spinning), non-metallic mineral products (pottery), wood and wood products are the important ones in the district. Weaving is the most important among them, which constitutes about 40 per cent of the units and provides more than 36 per cent of the employment.[6]

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[4] Report on the evalution of rural industries programmes in Orissa, Planning and Co-ordination (Evalution) Department, Government of Orissa.

[5] *Panchayat Samiti Industries in Orissa*—A Review of Progress, 1966-67, Directorate of Industries, Government of Orissa, pp. 1-2.

[6] *Operations Research Group, Baroda* : State Bank of India, Lead Bank Scheme, Koraput—Vol-I-District Profile-Study of Policy Oriented Lending and Deposit Potential-Mimographed, 1976, p. 15.

Growth Estimates

Time series data are not available on the growth rate of small scale industries in the district. But estimates made by different organisations throw some light on the subject. An estimate was made by the Operations Research Group, Baroda on the new units started in different categories to assess the trend of growth in this sector between 1959 and 1973 as shown in Table 3.

TABLE 3

Estimated number of New Small Industries

Category	1959—63	1964—68	1969—73	1959—73
Food products ..	37	58	77	172
Beverages, tobacco and tobacco products.	10	32	3	45
Textile products ..	22	76	96	194
Wood products ..	17	10	19	46
Leather and leather products ..	1	2	2	5
Metal products and parts ..	..	9	9	18
Miscellaneous Manufacturing ..	25	14	65	104
Repair of watches, clocks and Jewellery.	17	10	10	37
Repair of electrical goods ..	..	5	16	21
Other repairs ..	..	5	..	5
Total ..	155	250	361	766

Source—Lead Bank Scheme, Koraput-Vol. I-District Profile Study of Policy Oriented Lending and Deposit Potential made by Operations Research Group, Baroda Mimographed, 1976-p. 17.

Another estimate made on the number of small units added in each year in the district beginning from the year 1973-74 has been made by the Director of Industries, Government of Orissa as indicated in Table 4.

Both the Tables (3 and 4) indicate that there is a steady increase in the number of small industries in the district. Table 4 indicates that the number of new small scale units added, tha employment creatad and the total amount of money invested by the end of March, 1977 were 446; 3,232 and Rs. 222·04 lakhs respectively. Thus the average investment needed for one unit of employment was about Rs. 700.

TABLE 4

Number of Small Industries added in each year in Koraput district

Year	Engineering and metal base	Chemical and allied	Glass and ceramics	Leather	Agro-based	Textiles	Forest based	Electrical and electronics	Servicing and Misc.	Total	Total employment	Total investment in rupees (in thousands)
1973-74*	34	15	7	4	105	10	40	..	44	259	2,057	16,443
1974-75	14	9	4	..	31	3	8	3	2	74	503	1,748
1975-76	3	11	6	3	5	3	4	..	23	58	273	1,421
1976-77	8	6	7	1	17	9	3	1	3	55	399	2,592
1977-78 To Nov' 77)	8	1	1	..	21	..	4	2	6	43	205	..
Total	67	42	25	8	179	25	59	6	78	489	3,437	22,204

* Figures represent number of units till 1973-74.

Source—Directorate of Industries, Orissa, Cuttack.

An estimate made by the Operations Research Group, Baroda, indicate that out of the total small scale units located in the district during the year 1972-73, 855 were unregistered units and only 19 were registered units. The study further revealed that, "total productive capital invested in these units (excluding big units) during 1972-73 was around Rs. 1·3 crores. In terms of their income generation, value added by them was about one crore of rupees, which constitutes 1·3 per cent of the district income. The unregistered sector predominates over the registered sector in terms of its employment, capital turnover, profit and value added".[7]

Important Findings

The study made a number of important findings which will help us to determine the future potentialities of the growth of small-scale industries in the district. They are as follows : (*i*) Household industries like textile products, wood products and food products show a greater tendency to procure raw materials from local areas. As regards the marketing of the commodities, all induries excepting those engaged in manufacturing metal products and parts are having local bias. (*ii*) The profit margin is very high in the district and the average net profit of small industries before tax as a percentage to sales is 31·5. Industries producing beverages, tobacco and tobacco products, leather products and textile products showed a higher profit margin. (*iii*) Industries like food products and metal products and parts are found to be capital intensive. (*iv*) About 55 per cent of units in Koraput are operating below their capacity. Underutilisation is quite high among all other units excepting textiles and leather products. Lack of demand for the products followed by shortages of raw materials, power and adequate finances are the important factors responsible for such an underutilisation.[8]

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[7] *Ibid*, pp. 17-18.

[8] *Ibid*, pp. 19—25.

Potentialities

A number of studies have been made by various organisations at different times to find out the industrial potentialities of Koraput district. A rapid survey of the existing industries and the potential industrial resources of Orissa carried out during the post-war period has dealt with the possibilities of starting new industries in different regions of the district.[9] As per the suggestions made by Prof. P. C. Mohalanobis, in the National Sample survey Programme Committee meeting, a kind of industrial potential survey in and around the Sunabeda project area was made in 1966.''[10] The study recommended the expansion of handloom, pottery industries, and saw mills and establishment of oil mills, dyeing industry and industries producing agricultural implements including nuts, bolts, machine screws, etc.[11] The Small Industries Service Institute conducted a survey and suggested the establishment of sixteen different types of small industries in different parts of the district.[12] Similar potential studies have been made by the N. C. A. E. R., (in their report 'Development of Dandakaranya'), the Small Industries Extension Training Institute and M/s. Kirloskar Consultants Limited for the district.[13] In a recent study made by the Directorate of Industries, Government of Orissa development of three growth centres has been suggested in the district, and potentialities of candidate industries have baen separately made for each of the growth centres.[14] But these studies do not deal with the block-wise industrial potentialities of the district.

Block-wise

In recent years when the need of multi level planning and block level planning is increasingly felt it is desirable to conduct a study or block-wise potentialities of rural industries in the country as a whole. Such a study has more justification for a programme of rural industrialization which aims at dispersal of industries to rural areas with a view to providing employment opportunities to the vast rural masses. In case of Koraput district, the Operations Research Group, Baroda in their attempt to analyse the block-wise credit plan have dealt with the block-wise potentialities of small-scale industries in the district.[15] The capital requirements, employment potential and the expected amount of profit for each industry has also been calculated in the study.[16] Taking into consideration all these studies and other relevant factors like (*i*) supply of raw materials; (*ii*) natural and human resources; (*iii*) market for finished products; (*iv*) profitability and (*v*) infrastructural facilities block-wise potentialities of small-scale and cottage industries have been prepared.

Block-wise potentialities of small-industries in Koraput district are as follows: (1) Bandhugaon—rice huller (servicing unit) and readymade garments (servicing unit); (2) Dasmantpur—rice huller (servicing unit) and readymade garments (servicing unit); (3) Koraput—handloom industry (spinning and weaving), wood works, cattle feed, rice huller (servicing unit), flour mills, tile making, oil crushing unit, cashewnut processing, stone crushing, aerated water and bakery unit; (4) Laxmipur—rice huller (servicing unit), readymade garments (servicing unit) and fruit preservation unit; (5) Naryanpatna—wood products (carpentry); (6) Kalyan Singhpur saw mill and rice huller (servicing unit); (7) Kolnora—readymade garments (servicing units); (8) Rayagada—oil crushing unit, aerated water, non-metalic mineral products (pottery), readymade garments (servicing unit), wooden products (furniture), agricultural implements, rice huller (servicing unit), exercise books, washing soap, stone crusher, dal mill and aluminium hardware; (9) Chandrapur—readymade garments (servicing unit), rice huller (servicing unit) and bamboo works; (10) Gudari—rice huller (servicing unit) and readymade garments (servicing unit); (11) Gunupur—readymade garments (servicing unit), rice huller (servicing unit), tobacco products and aerated water; (12) Padmapur—metal products (bell-metal), readymade garments (servicing unit) and metal products (blacksmithy); (13) Ramanaguda—rice huller (servicing unit) and readymade garments (servicing unit); (14) Bissam Cuttack—rice huller (servicing unit) and readymade garments (servicing unit) (15) Muniguda—sisal rope manufacturing; mat making, oil crushing unit, starch from tamarind seed, rice huller (servicing unit); and readymade garments (servicing unit); (16) Boipariguda—rice huller (servicing unit), readymade garments (servicing unit) and oil crushing unit; (17) Jaypore—wood products (carpentry), dal mill, ice factory, starch from tamarind seed, aerated water, readymade garments (servicing unit), Printing press, cashewnut processing, tobacco products, corn flakes, tanin from myrobalan, stone crushing, fruit processing, cement hume pipe, writing inK, fruit processing, brick kiln unit, safety matches, Agarbatti, and paper bags; (18) Kundra—rice huller (serving unit) and readymade garments (servicing unit); (19) Lamtaput—oil crushing unit, rice huller (servicing unit) and readymade garments (servicing unit); (20) Nandpur—oil crushing unit, cotton textiles (spinning and weaving) rice huller (servicing unit) and readymade garments (servicing unit): (21) Pottangi—fruit juice extracting unit, rice huller (servicing unit), readymade garments (servicing unit), and lime burning; (22) Semiliguda—oil crushing unit, tile manufacturing unit, dyeing unit, cashewnut processing industry, rice huller (servicing unit). and readymade garments (servicing unit), (23) Kodinga—rice huller (servicing unit) and readymade garments (servicing unit); (24) Nandahandi— rice huller (servicing unit) and readymade garments (servicing unit); (25) Nowrangpur—wood products (carpentry), oil crushing unit, aerated water, readymade garments, steel furniture, rice huller (servicing unit) , soap manufacturing, tamarind seed starch industry, dal mill and bakery; (26) Papadahandi— rice huller (servicing unit) and readymade garments (servicing unit); (27) Tentuli Khunti—rice huller (servicing units) ready-made garment (servicing unit) and oil crushing unit; (28) Chandahandi— rice huller (servicing unit) and readymade garments (servicing unit); (29) Dabugaon—metal products (blacksmithy) and readymade garments (servicing unit); (30) Raighar— rice huller (servicing unit) and readymade garments (servicing unit); (31) Jhorigam—rice huller (servicing unit) and readymade garments (servicing unit); (32) Umerkote—rice huller (servicing unit), and readymade garments (servicing unit), tobacco products, tile and pottery manufacturing unit and jute twine; (33) Borigumma—wood products (carpentry), metal products (bell metal and readymade garments (servicing unit); (34) Kotpad—handloom (textiles), jute rope, oil crushing unit, rice huller (servicing unit), readymade garments (servicing unit) and lime burning; (35) Kalimela—rice huller (servicing unit) and readymade garments (servicing unit); (36) Podia—rice huller (servicing unit), readymade garments (servicing unit) and mat making unit; (37) Govindapalli—rice huller (servicing unit), readymade garments (servicing unit) and leaf plate and broom making unit; (38) Kudamulugumma-rice huller (servicing unit), and readymade garments (servicing unit); (39) Korkunda—rice huller (servicing unit) and readymade garments; (40) Malkangiri— rice huller (servicing unit), aerated water, readymade garments, tamarind seed starch, tobacco products and jute twine; (41) Mathili—rice huller (servicing unit), readymade garments (servicing unit) and lime burning and (42) Kashipur—rice huller and readymade garments.

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[9] H. B. Mohanty : *An Industrial Survey of Orissa*, Orissa Government Press, Cuttack-1957.

[10] *Report on the Industrial Potential Survey in and around Sunabeda in Koraput district*, 1966, Bureau of Statistics and Economics, Government of Orissa, 1967.

[11] *Ibid*, pp. 21—23.

[12] *Survey Report on Koraput District, Orissa*, December 1971, State Bank of India-Lead Bank Scheme, pp. 54-55.

[13] *Ibid*, pp. 55—57.

[14] *Action Plan for Industrial Development*, Koraput District, Directorate of Industries, Government of Orissa and the Orissa Small Indutries Corporation Ltd., 1978, pp. 16—34.

[15] *District Plan for Koraput* (*Orissa*), Operations Research Group, Baroda, State Bank of India, Lead Bank Scheme, *op cit.* pp. 80—204.

[16] *Ibid*, pp. 224—265.

The Need

If the potentiality develops and the local inhabitants are trained to participate in each of these industries suggested it will, create employment opportunities and increase the income earning activities of the local people most of whom are tribals. In addition to these industries suggested above processing industries like turmeric powdering unit, tarmarind juice making unit etc., at suitable places will also increase the income earning opportunities. The suggested block-wise potentialities of industries, may also need suitable alterations after proper survey of the resources is made for the development of industries.

All these call for suitable administrative and governmental support. A band of dedicated officers with integrity may be able to avoid the organisational difficulties at the initial stage of creating a new industial climate. In any set of administrative mechanism difficulties are bound to raise their heads and at this stage co-operation of politicians and administrators can play a deciding role.

In the conclusion it is relevant to point out that the development of any area whether in terms of agriculture or industry cannot be an isolated phenomenon. The economic performance of the study area is linked in several ways in terms of sale and purchase, credit inflow and outflow, flow of skills etc., with other regions also without changing the entire relationship. It is, however, difticult to visualise the development of a district like Koraput by considering it as a part of the higher spatial order.

Courtesy—Khadi gramodyog

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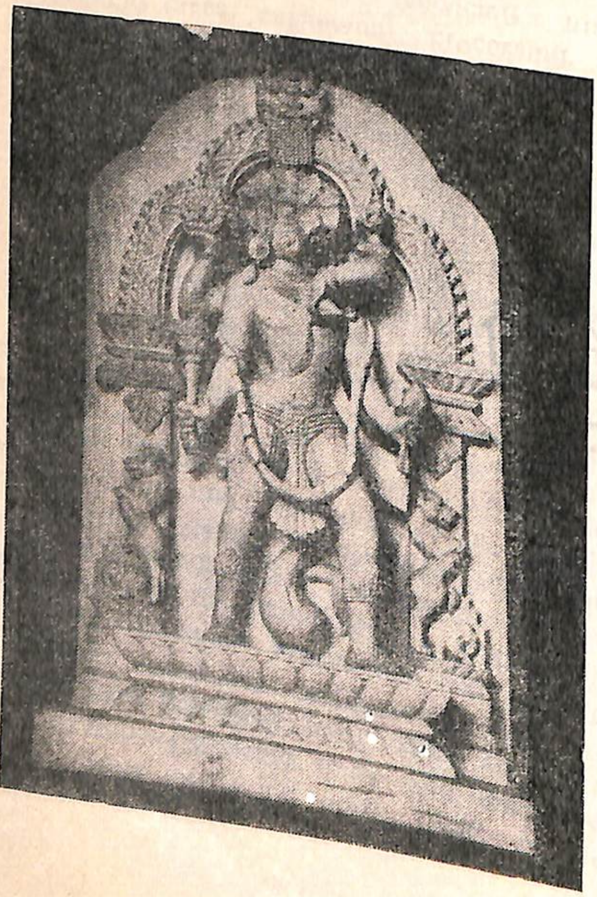
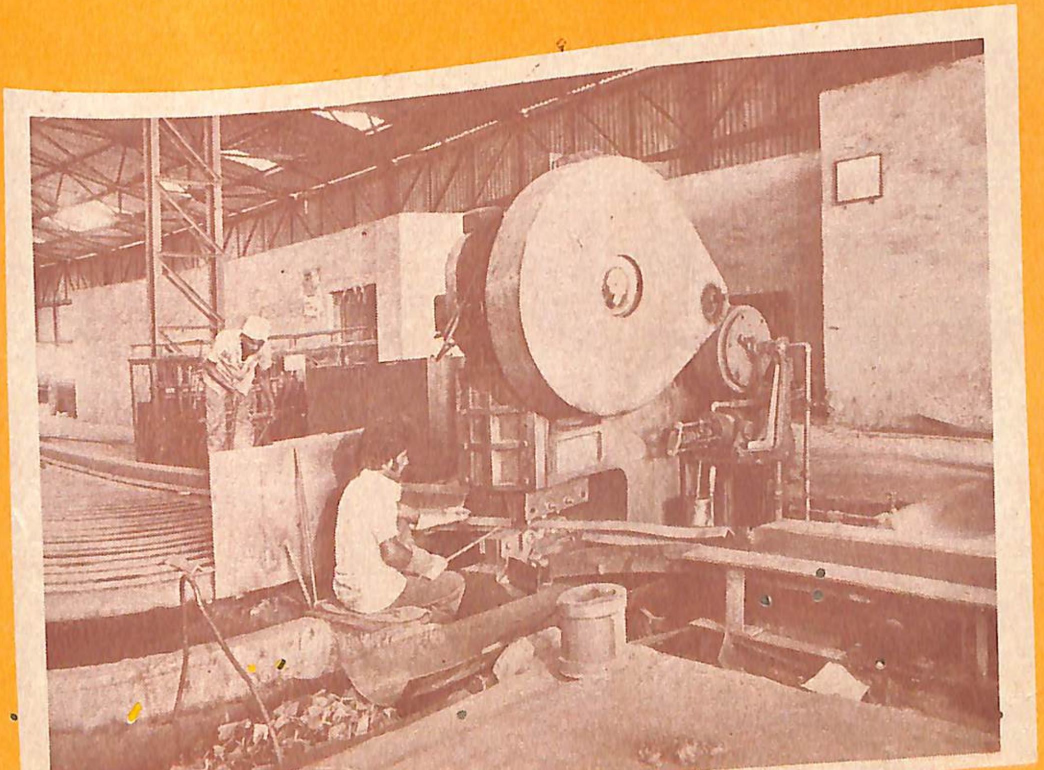


Molten Metal being poured from the laddle in Ferro-Chrome Plant at Jaipur Road



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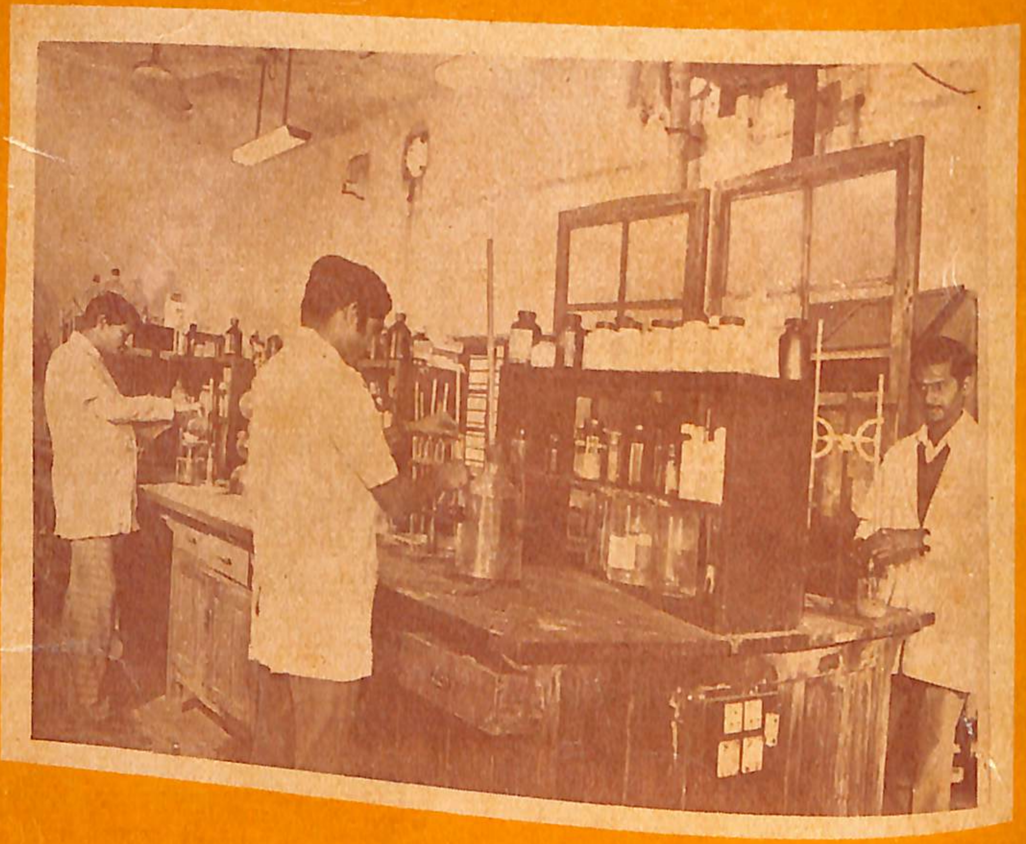
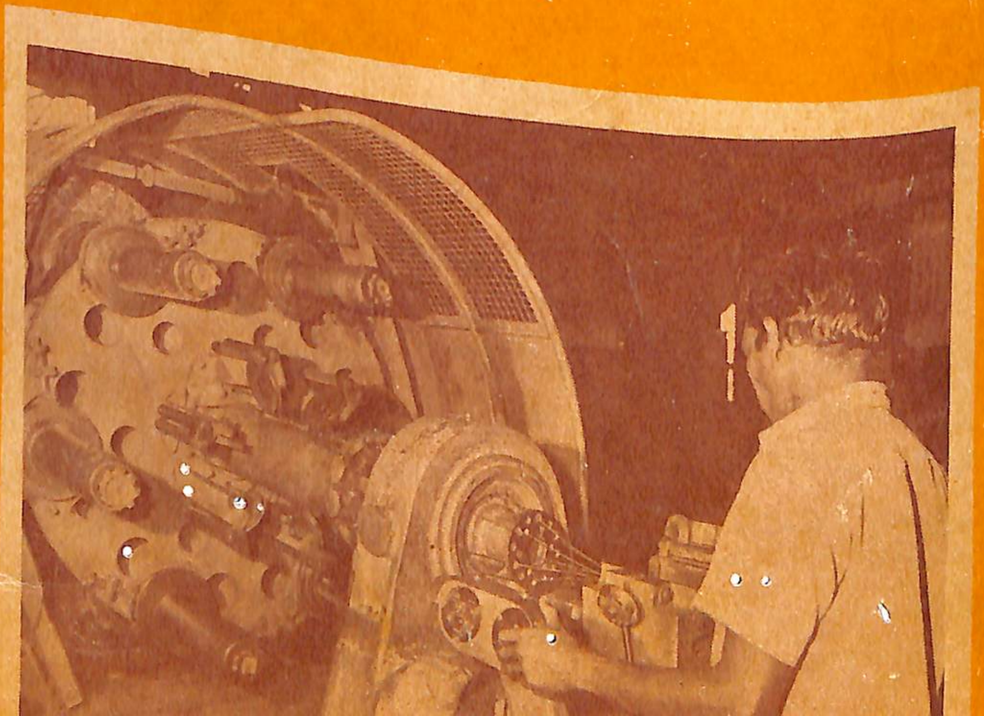


A sophisticated laboratory in Ferro-Chrome Plant at Jajpur Road to control the quality of the products



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